HCD-V5500

SERVICE MANUAL

E Model
Chinese Model

- HCD-V5500 is the deck, CD section in MHC-V5500/V7700AV.

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CD Section	Model Name Using Similar Mechanism	HCD-V8800
	CD Mechanism Type	CDM38-5BD21
	Base Unit Name	BU-5BD21
	Optical Pick-up Type	KSS-213B/S-N
Tape deck Section	Model Name Using Similar Mechanism	HCD-V8800
	Tape Transport Mechanism Type	TCM-220WR2E

SPECIFICATIONS

VIDEO CD/CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser (λ=780nm) Emission duration: continuous
Laser output	Max.44.6 µW* *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Audio	
Frequency response	2 Hz - 20 kHz(±0.5 dB)
Wavelength	780 - 790 nm
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB
Video	
Color system format	NTSC, PAL

CD OPTICAL DIGITAL OUT
(Square optical connector jack, rear panel)

Wavelength	600 nm
Output Level	–18 dBm

Tape player section

Recording system	4-track 2-channel stereo
Frequency response	60 - 13,000 Hz (±3 dB), (DOLBY NR OFF) using Sony TYPE I cassette 60 - 14,000 Hz (±3 dB), using Sony TYPE II cassette

Design and specifications are subject to change without notice.

STEREO CASSETTE DECK CD PLAYER

MICROFILM

SONY®

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SECTION 1
SERVICING NOTE

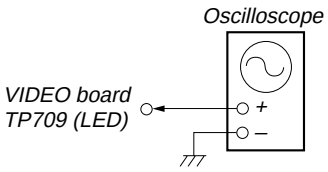
SELF-DIAGNOSIS

This model has the self-diagnosis function for the VIDEO and AUDIO decoder sections.

Immediately after the power on, the self-diagnosis function searches each operation of IC's around the mechanism control microcomputer (IC701).

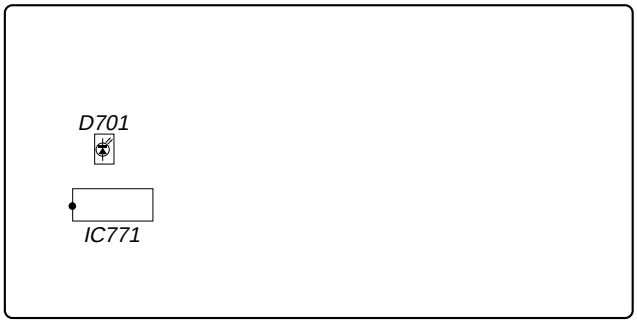
The results can be checked by connecting an oscilloscope to TP709 (LED) of the VIDEO board.

Oscilloscope (Waveform)	Symptom
H L *Light*	No error
H L *1 time blinking*	External SRAM (IC751) error
H L *2 time blinking*	MPEG decoder (IC201) error
H L *3 time blinking*	DRAM (IC251) error

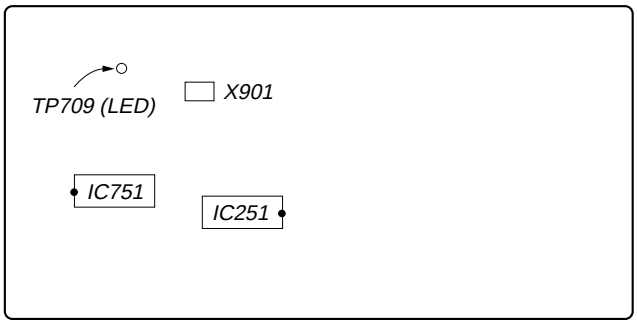


Note: The LED for check (D701) is mounted to some sets (FORMER TYPE). In this case, confirm the lighting condition of LED.

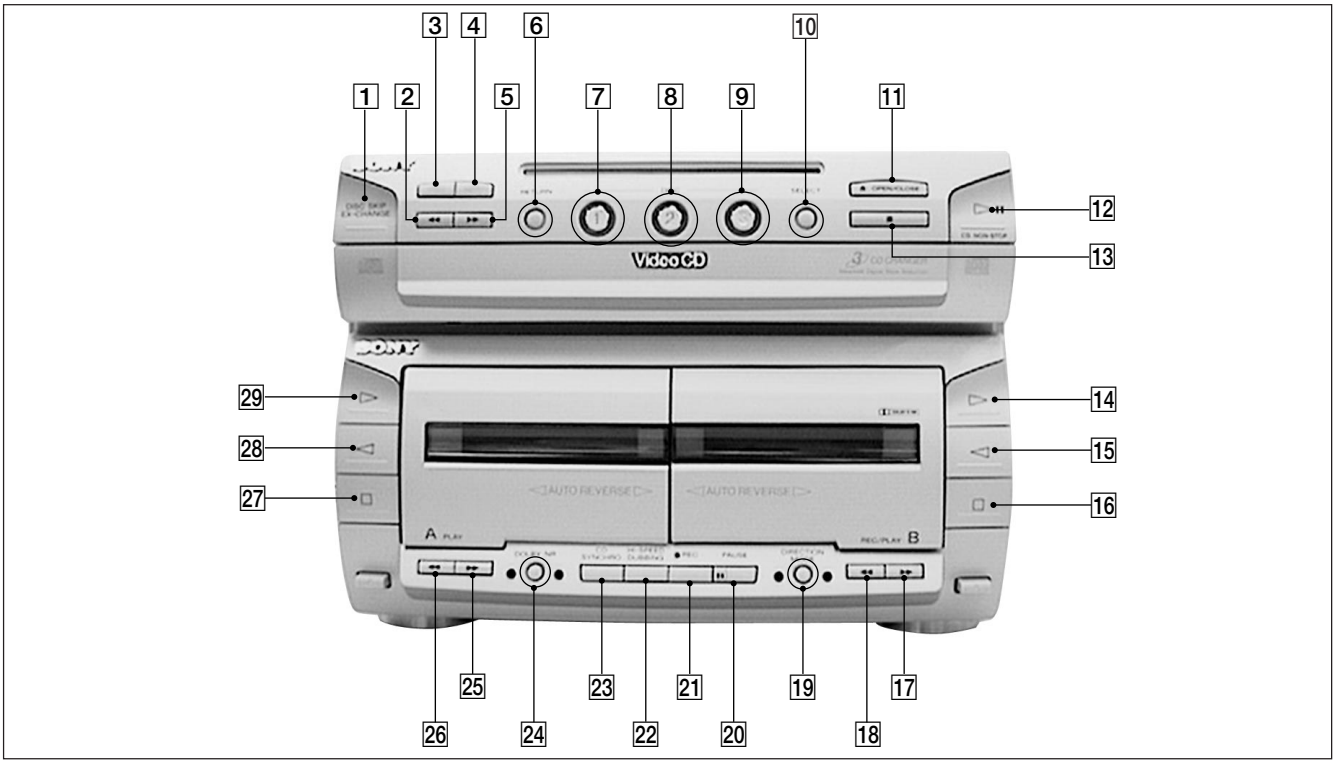
[VIDEO BOARD] (SIDE A)



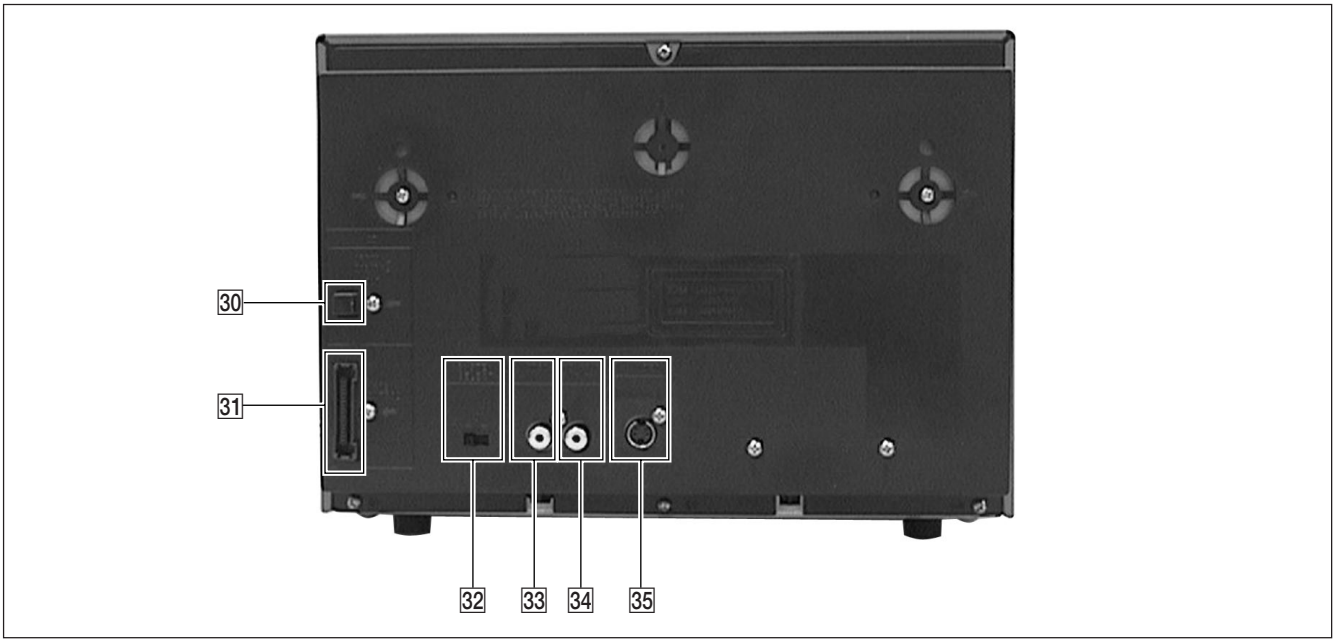
[VIDEO BOARD] (SIDE B)



SECTION 2
GENERAL



1 DISC SKIP EX-CHANGE Button (CD)
2 ◀◀ Button (CD)
3 PREV Button (CD)
4 NEXT Button (CD)
5 ▶▶ Button (CD)
6 RETURN Button (CD)
7 DISC 1 Button (CD)
8 DISC 2 Button (CD)
9 DISC 3 Button (CD)
10 SELECT Button (CD)
11 ⏏ OPEN/CLOSE Button (CD)
12 ▷❚❚ CD NON-STOP Button (CD)
13 ■ Button (CD)
14 ▷ Button [B] (DECK)
15 ◁ Button [B] (DECK)
16 □ Button [B] (DECK)
17 ▶▶ Button [B] (DECK)
18 ◀◀ Button [B] (DECK)
19 DIRECTION MODE Button (DECK)
20 PAUSE Button (DECK)
21 REC Button (DECK)
22 HI-SPEED DUBBING Button (DECK)
23 CD SYNCHRO Button (DECK)
24 DOLBY NR Button (DECK)
25 ▶▶ Button [A] (DECK)
26 ◀◀ Button [A] (DECK)
27 □ Button [A] (DECK)
28 ◁ Button [A] (DECK)
29 ▷ Button [A] (DECK)

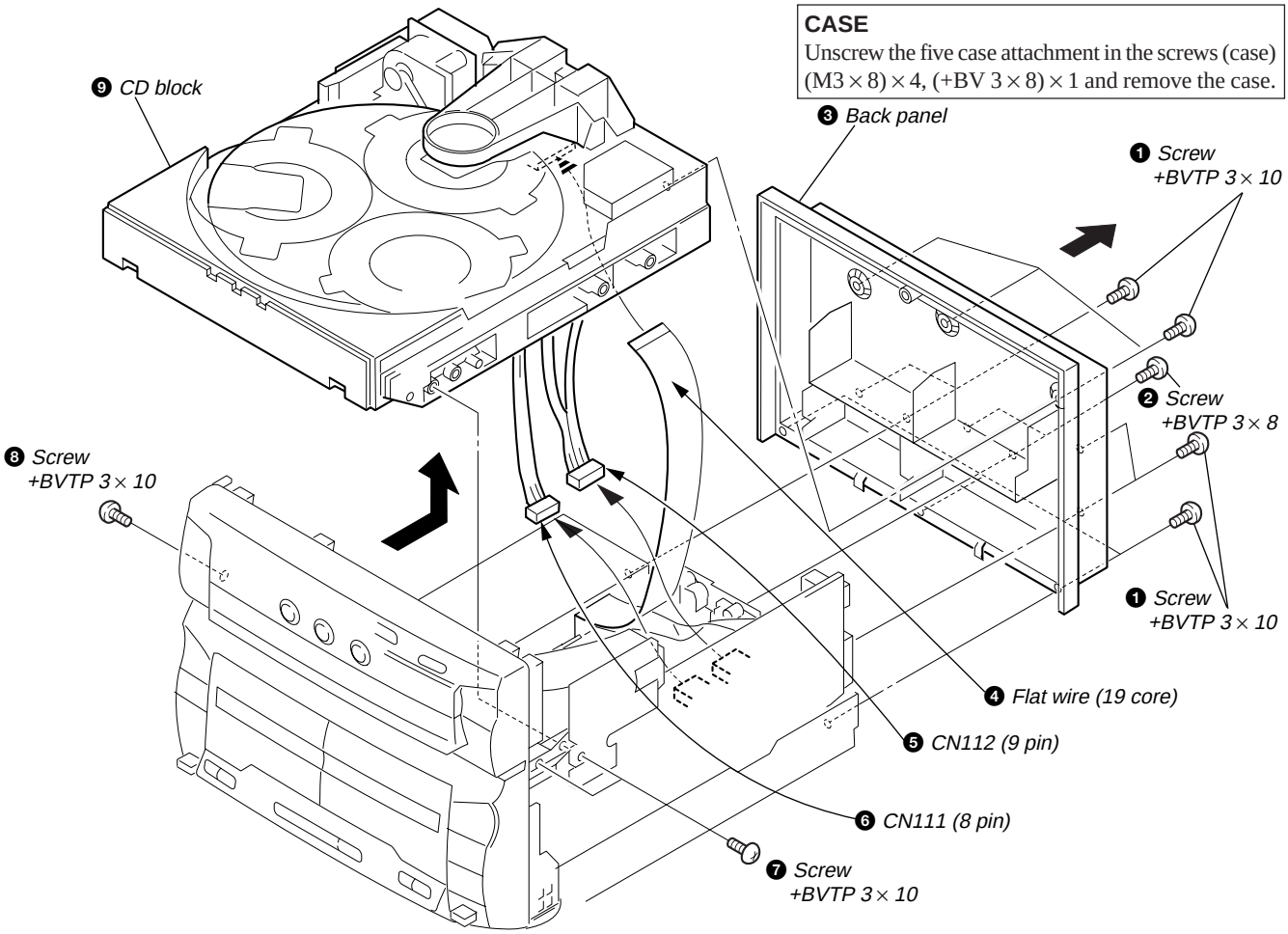


30 OPTICAL DIGITAL OUT
31 SYSTEM CONTROL CONNECTOR
32 SYSTEM SELECT SWITCH
33 VIDEO IN JACK
34 MONITOR OUT JACK
35 S VIDEO JACK

SECTION 3
DISASSEMBLY

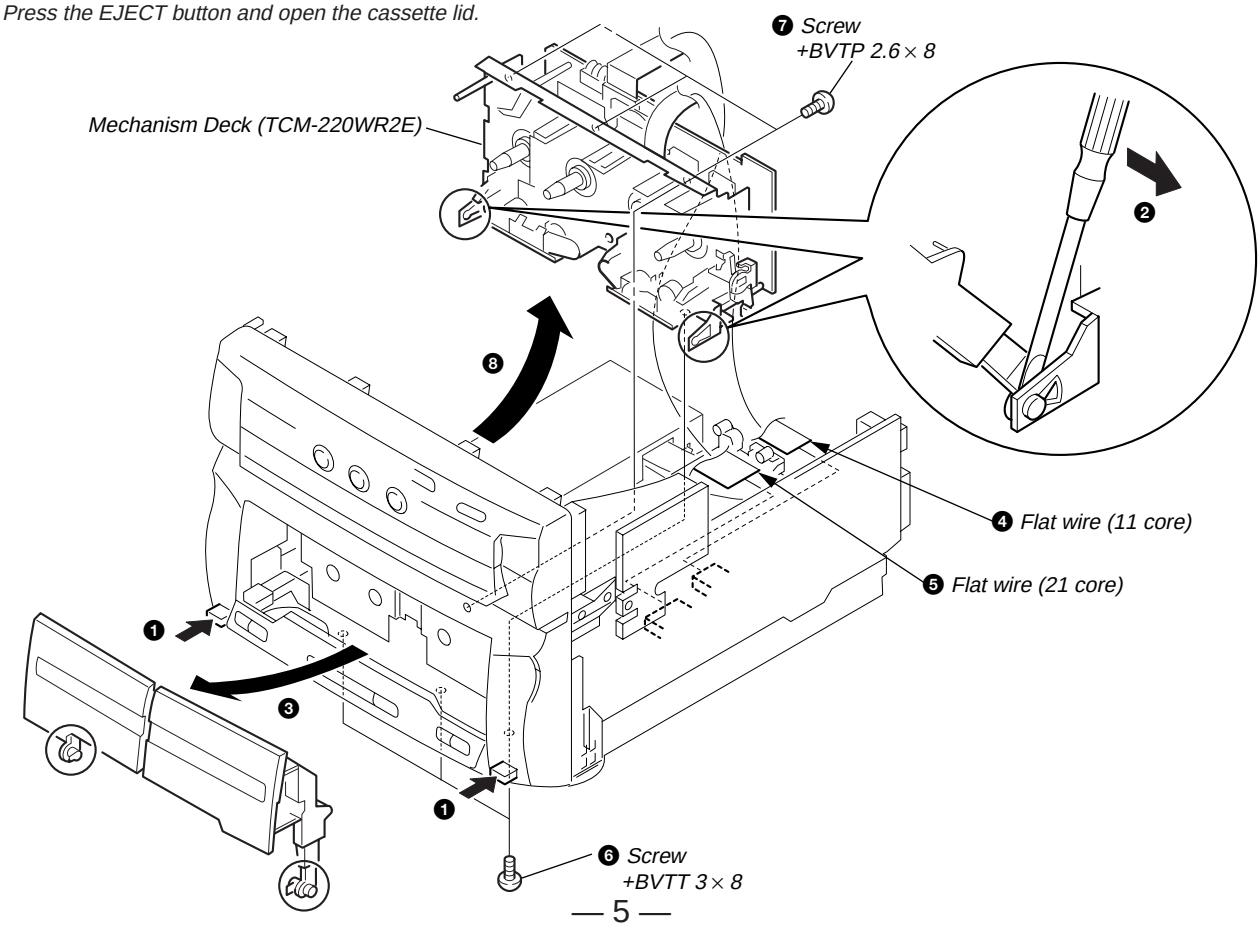
Note : Follow the disassembly procedure in the numerical order given.

3-1. BACK PANEL, CD BLOCK REMOVAL

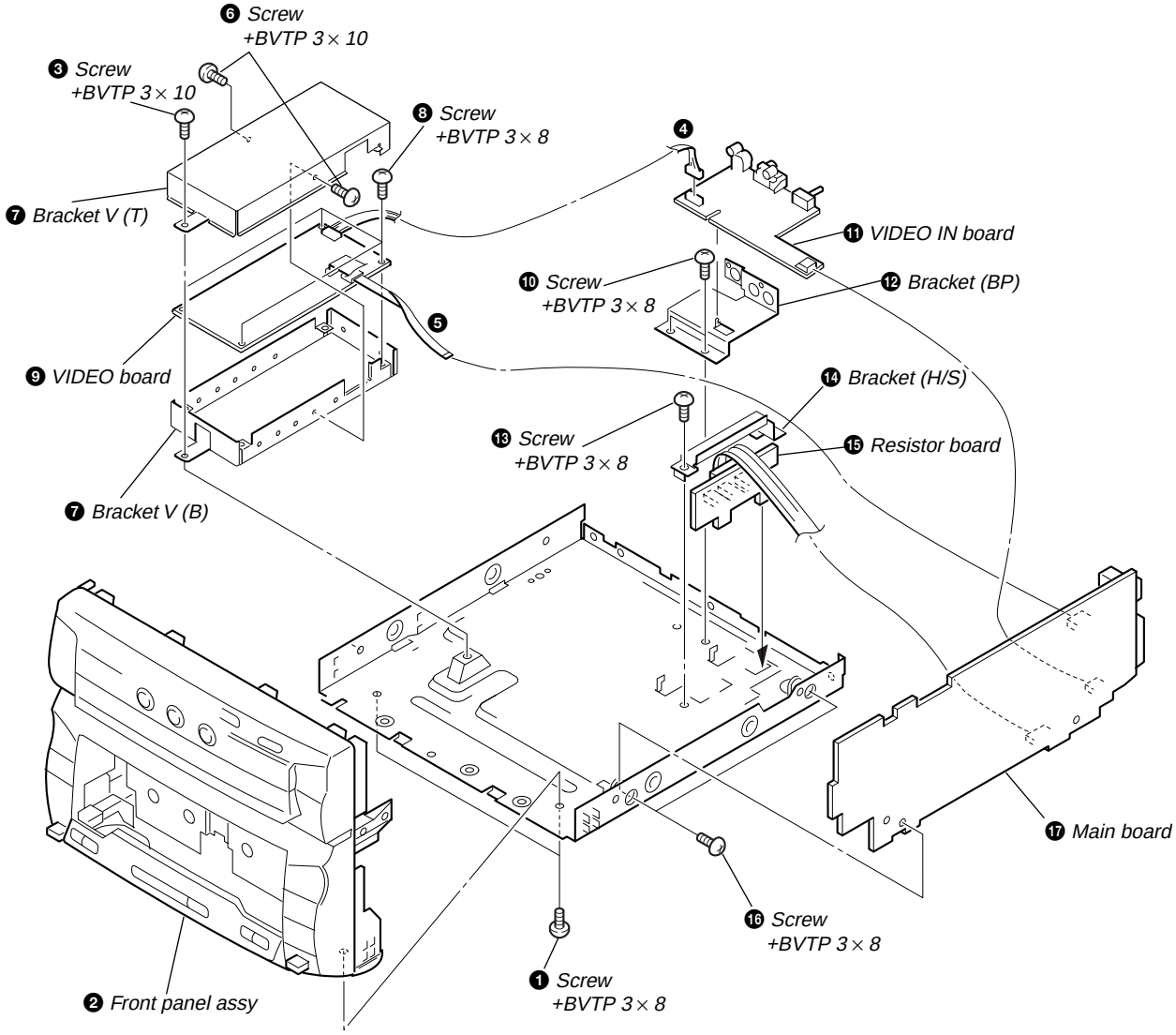


3-2. CASSETTE LID (A)/(B) ASSY, MECHANISM DECK REMOVAL

① *Press the EJECT button and open the cassette lid.*

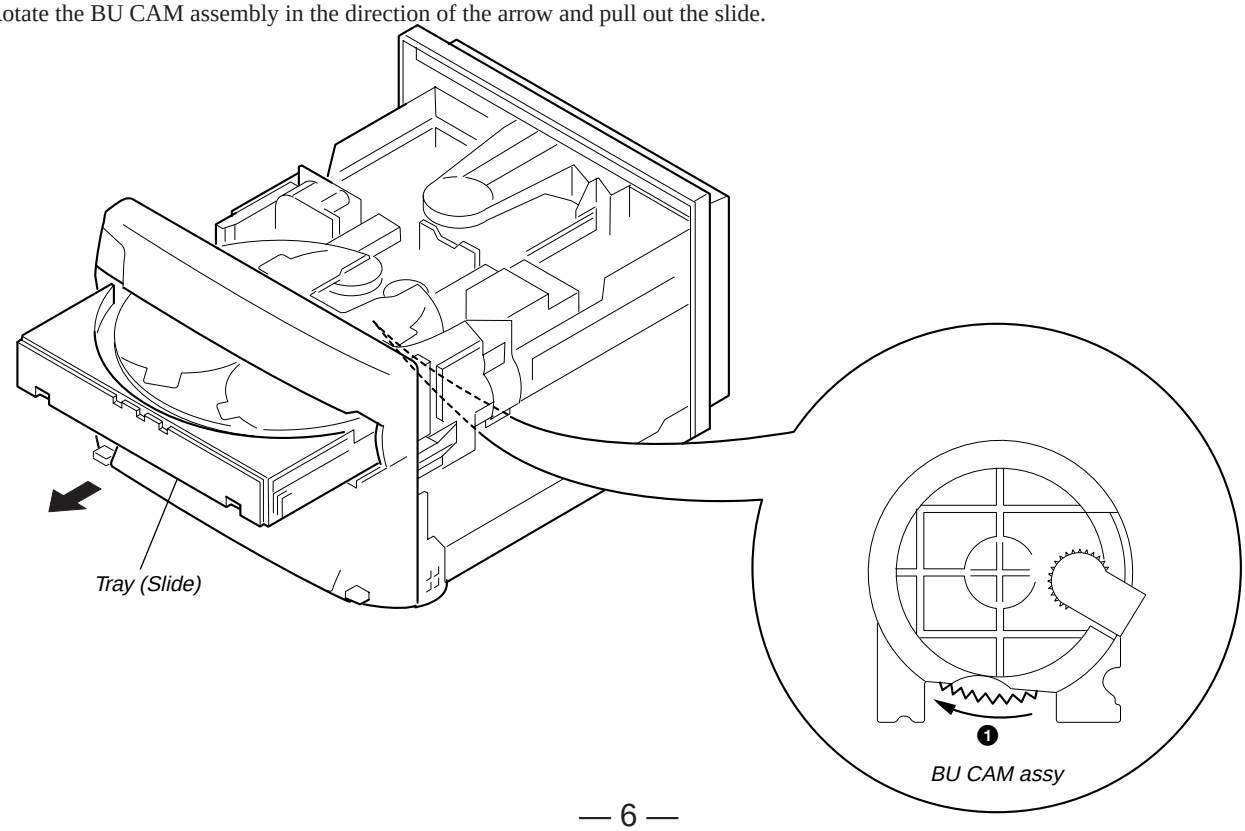


3-3. MAIN BOARD, RESISTOR BOARD, VIDEO BOARD, VIDEO IN BOARD, FRONT PANEL ASSY REMOVAL



- **Tray (Slide) getting out procedure on the power supply is OFF**

  Rotate the BU CAM assembly in the direction of the arrow and pull out the slide.



SECTION 4
TEST MODE

VIDEO CD COLOR-BARS MODE

On this mode, the data of the color-bars signal as a picture signal and the 1kHz sine wave signal as a sound signal are output by the mechanism control microcomputer (IC701) for video CD signal check. When measurement of the voltage and waveform on the VIDEO board, perform it in this mode.
For reference, the color-bars signal can be observed at J9001 (VIDEO OUT) and the sound signal can be observed at J101 (VIDEO (AUDIO) OUT) using an oscilloscope.

1. Connect the lead wire to both ends of the land of SL701 (CAL BAR) of the VIDEO board.
2. Turn the power on. Press FUNCTION button to select CD.
3. After 2 or 3 seconds later, connect the lead wire.
4. After measuring, remove the lead wire connected.

Note : The 1kHz sine wave is not outputted when the CD is played once, but it is not error.

[VIDEO BARD] (SIDE B)

SECTION 5
ADJUSTMENTS

5-1. MECHANICAL ADJUSTMENT

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
   record/playback head — pinch roller
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	36 to 61g•cm (0.50 – 0.84 oz•inch)
Forward Back Tension	CQ-102C	2 to 6g•cm (0.028 – 0.083 oz•inch)
Reverse	CQ-102RC	36 to 61g•cm (0.50 – 0.84 oz•inch)
Reverse Back Tension	CQ-102RC	2 to 6g•cm (0.028 – 0.083 oz•inch)
FF, REW	CQ-201B	61 to 143g•cm (0.85 – 1.99 oz•inch)

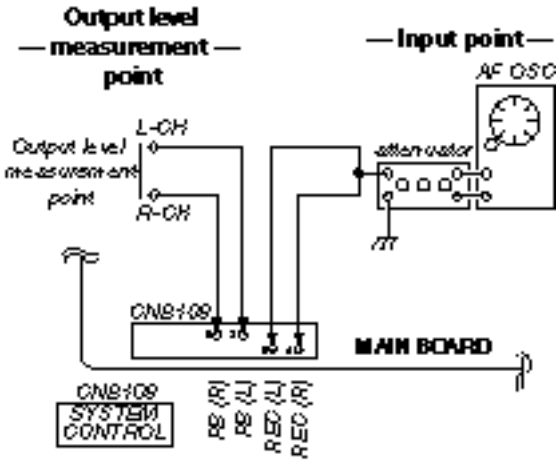
• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 100 g (3.53 oz)
Reverse	CQ-403R	more than 100 g (3.53 oz)

5-2. ELECTRICAL ADJUSTMENT

DECK SECTION

1. The adjustment should be performed in the publication. (Be sure to make playback adjustment at first.)
2. The adjustment and measurement should be performed for both L-CH and R-CH.
   • Switch position
   DOLBY NR switch : OFF
   FUNCTION button : OFF
   EFFECT switch : OFF
   DBFB switch : OFF
3. Deck section electrical adjustments are made in test mode by press key switch same time CD STOP DECK A STOP and DECK B STOP button.
4. Input point and output level measurement point.



• Test Tape

Tape	Signal	Used for
P-4-A100	10 kHz, –10 dB	Head Azimuth Adjustment
P-4-L300	315 Hz, 0dB	Level Adjustment
WS-48B	3 kHz, 0dB	Tape Speed Adjustment

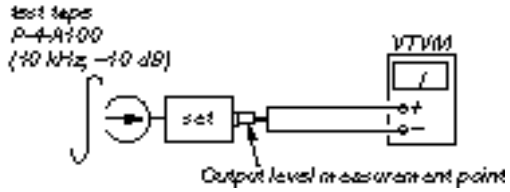
0 dB=0.775V

Record/Playback Head Azimuth Adjustment

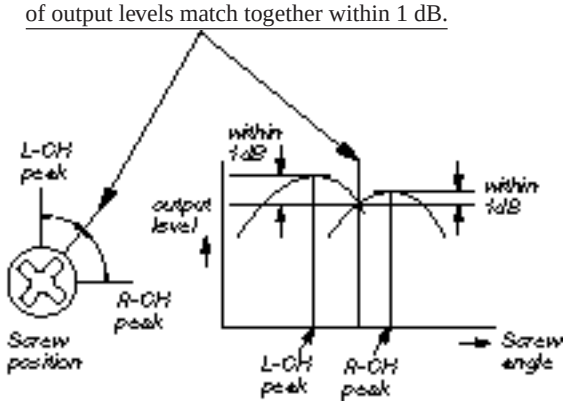
DECK A **DECK B**

Procedure:

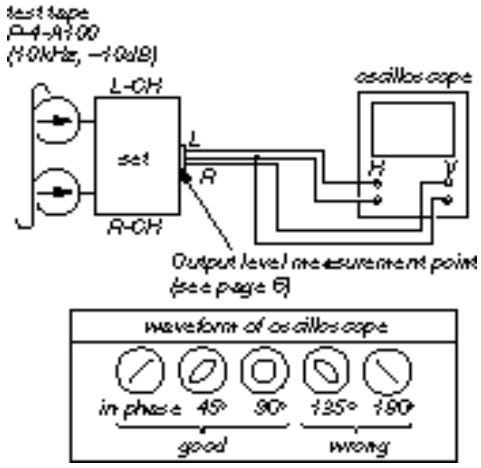
1. Forward Playback mode
   Reverse Playback mode



2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1 dB.

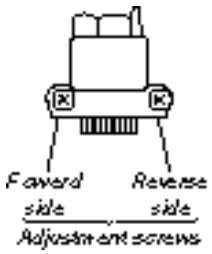


3. Playback Mode



4. Change the playback mode and repeat the steps 1 to 3.
5. After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location:
— Record/playback head (Deck A and B) —

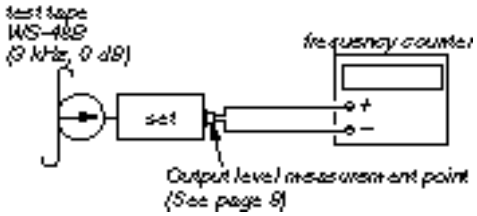


Tape Speed Adjustment DECK A DECK B

Note: Start the Tape Speed adjustment as below after setting to the test mode.
Set to test mode. (Press key switch same time CD STOP DECK A STOP and DECK B STOP button.)
Test mode off. (Power off.)

Procedure:

- Perform high speed adjustment before normal speed adjustment.
  Mode: Playback



Speed	Deck	Adjustment	Frequency counter
*High	A	RV652	5,910 to 6,090 Hz
	B	RV652	
Normal	A	RV651	2,910 to 3,090 Hz
	B	RV651	

* Continue to press HIGH SPEED DUBBING switch (S259) in playback mode : High speed playback.

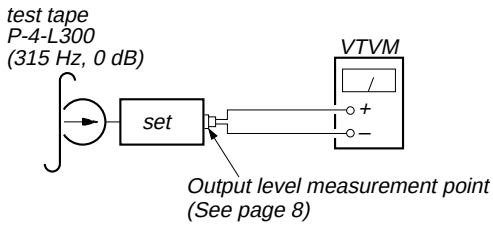
Frequency difference between the beginning and the end of the tape should be within ± 3%.
Frequency difference between deck A and deck B the beginning of the tape should be within 1.5 %.

Adjustment Location: AUDIO board (See page 10)

Sample Value of Wow and flutter
W.RMS (JIS) within 0.3%
(test tape: WS-48B)

Playback level Adjustment DECK A DECK B

Procedure:
— FWD playback Mode —



Deck A is RV311 (L-CH) and RV411 (R-CH), Deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within adjustment level as follows.

Adjustment Level:
LINE OUT level : –8.2 to –7.2 dB (301.5 to 338.3 mV)
Level Difference between Channels : within 0.5 dB

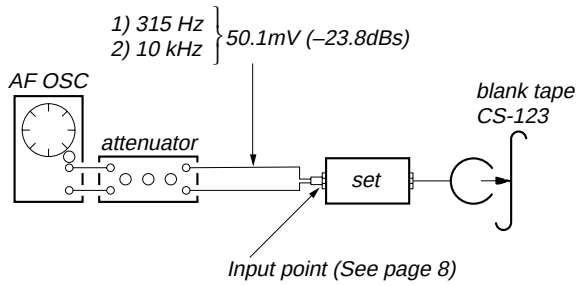
Confirm the OUTPUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location: AUDIO board (See page 10)

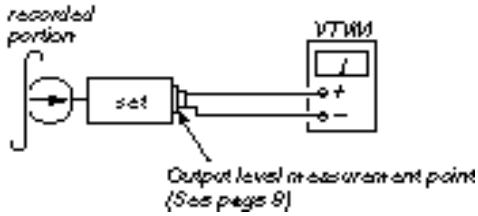
Record Bias Adjustment **DECK B**

Procedure:

1. Record mode



2. Mode: Playback



3. Confirm playback the signal recorded in step 1 become adjustment level as follows.
4. If these levels do not adjustment level, adjustment the RV341 (L-CH) and RV441 (R-CH) to repeat steps 1 and 4.

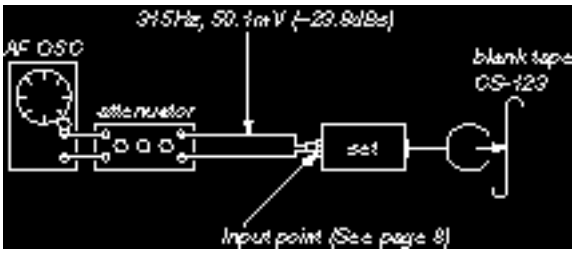
Adjustment level: Playback output of 315 Hz to playback output of 10 kHz: 0 ± 1.0 dB (0 ± 4.5mV).

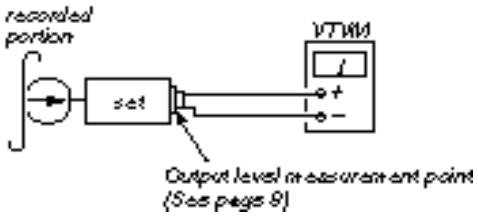
Adjustment Location: AUDIO board

Record Level Adjustment **DECK B**

Procedure:

1. Record mode





2. Playback mode
3. Confirm playback the signal recorded in step 1 become adjustment level as follows.
4. If these levels do not adjustment level, adjustment the RV401 (L-CH) and RV451 (R-CH) to repeat steps 1 and 4.

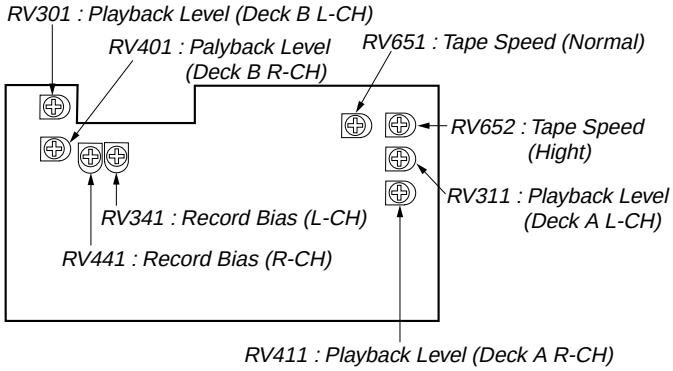
Adjustment Level:

OUTPUT level: –23.8 dB ± 1.0 dB (56.1 to 44.6 mV)

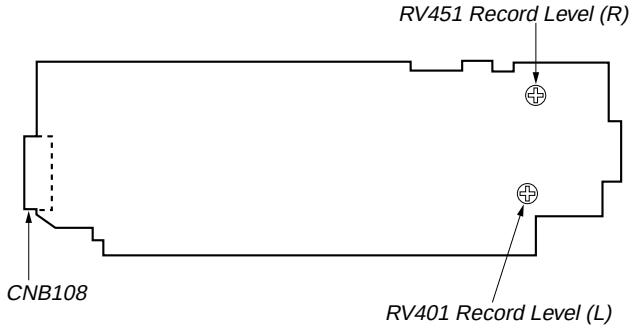
Adjustment Location: MAIN board

Adjustment Location :

[AUDIO BOARD] — Component Side —



[MAIN BOARD] — Component Side —

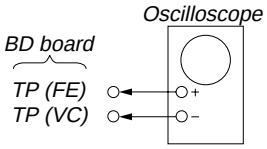


CD SECTION

Note :

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

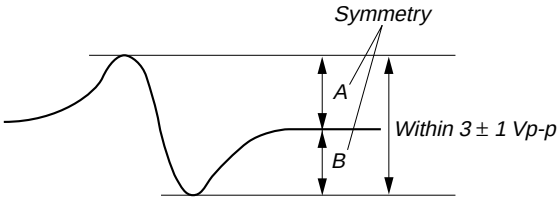
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3 ± 1 Vp-p.

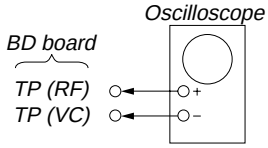
S-curve waveform



6. After check, remove the lead wire connected in step 2.

Note : • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

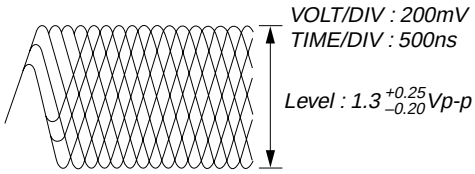


Procedure :

1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note : A clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

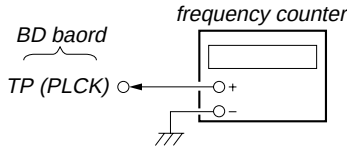
RF signal waveform



RF PLL Free-run Frequency Check

Procedure :

1. Connect frequency counter to TP (PLCK) with lead wire.

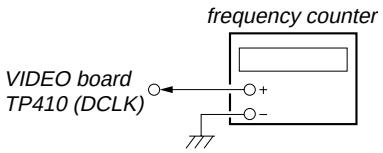


2. Turned Power switch on.
3. Put the disc (YEDS-18) in to play the number five track.Confirm that reading on frequency counter is 4.3218 MHz.

VIDEO SECTION

Frequency adjustment

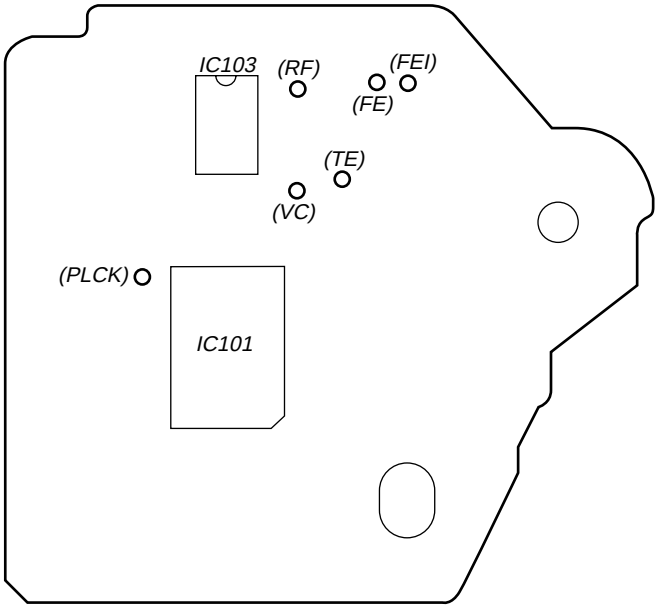
1. Connect the frequency counter to check point of the VIDEO board.



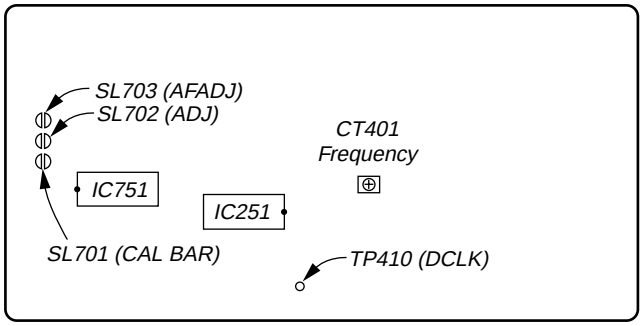
2. Adjust CT401 of the VIDEO board so that the frequency counter read 13.5 MHz ± 40 Hz at STOP condition.

Adjustment Location :

[BD BOARD] — SIDE A —

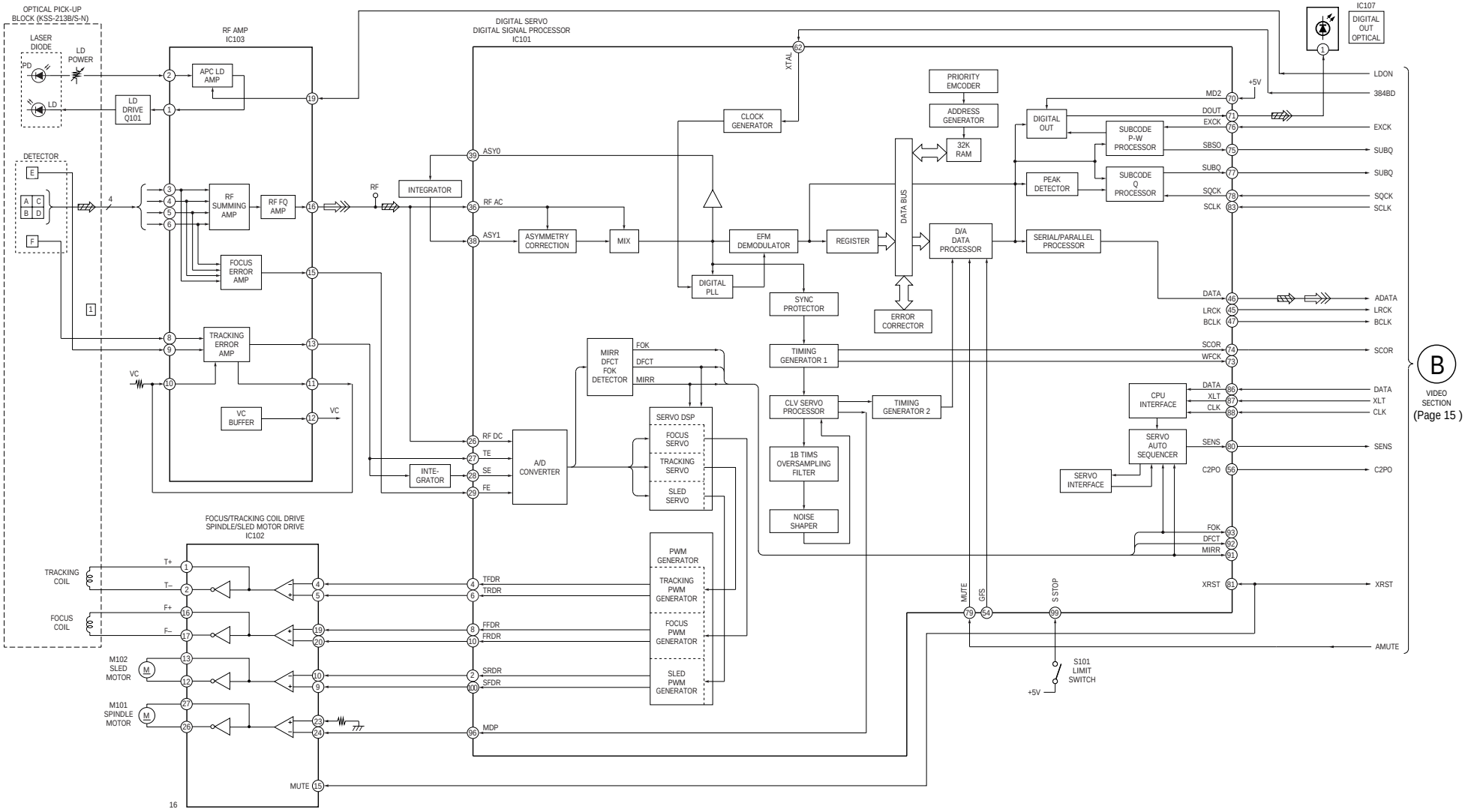


[VIDEO BOARD] — SIDE B —



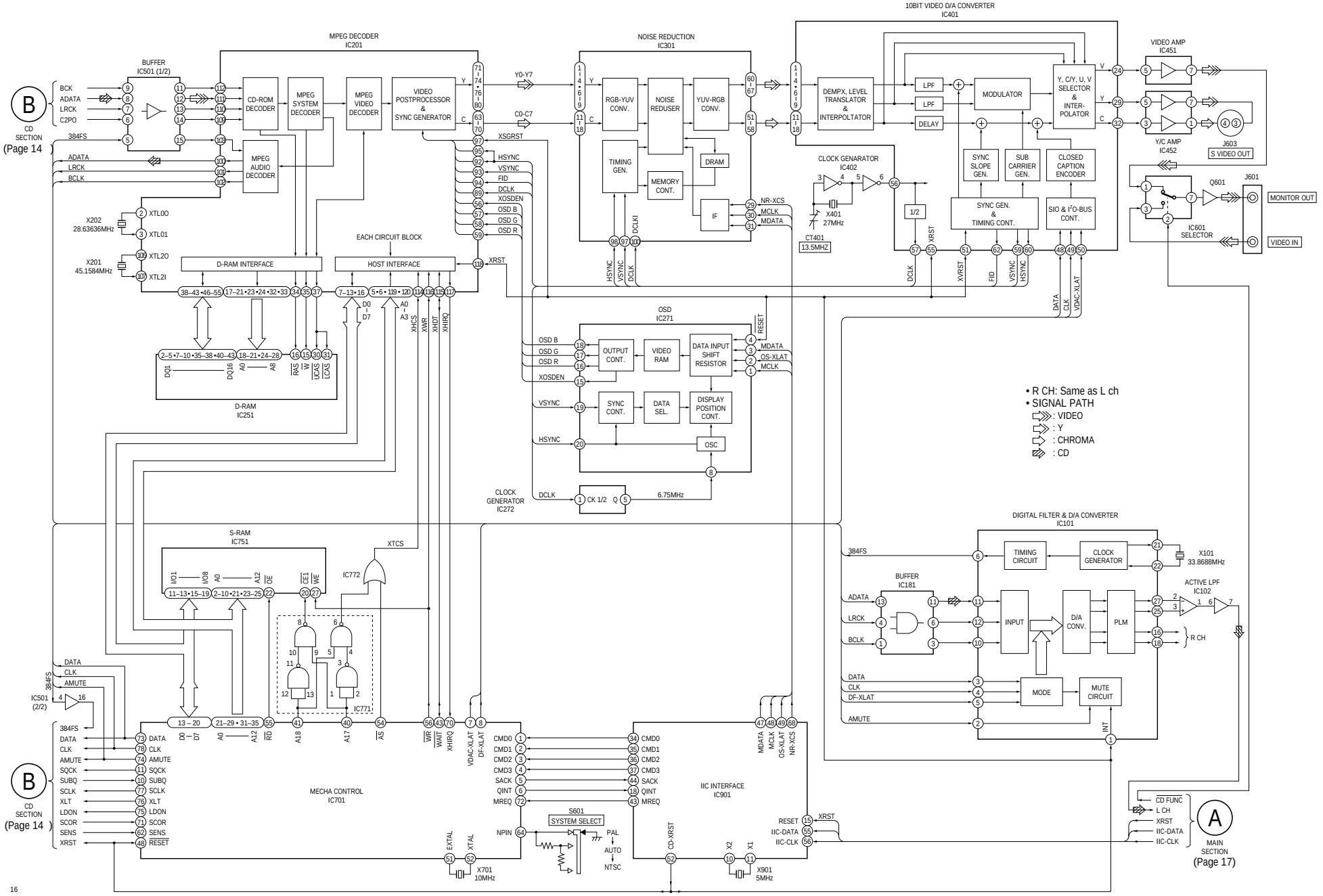
SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM — CD SECTION —

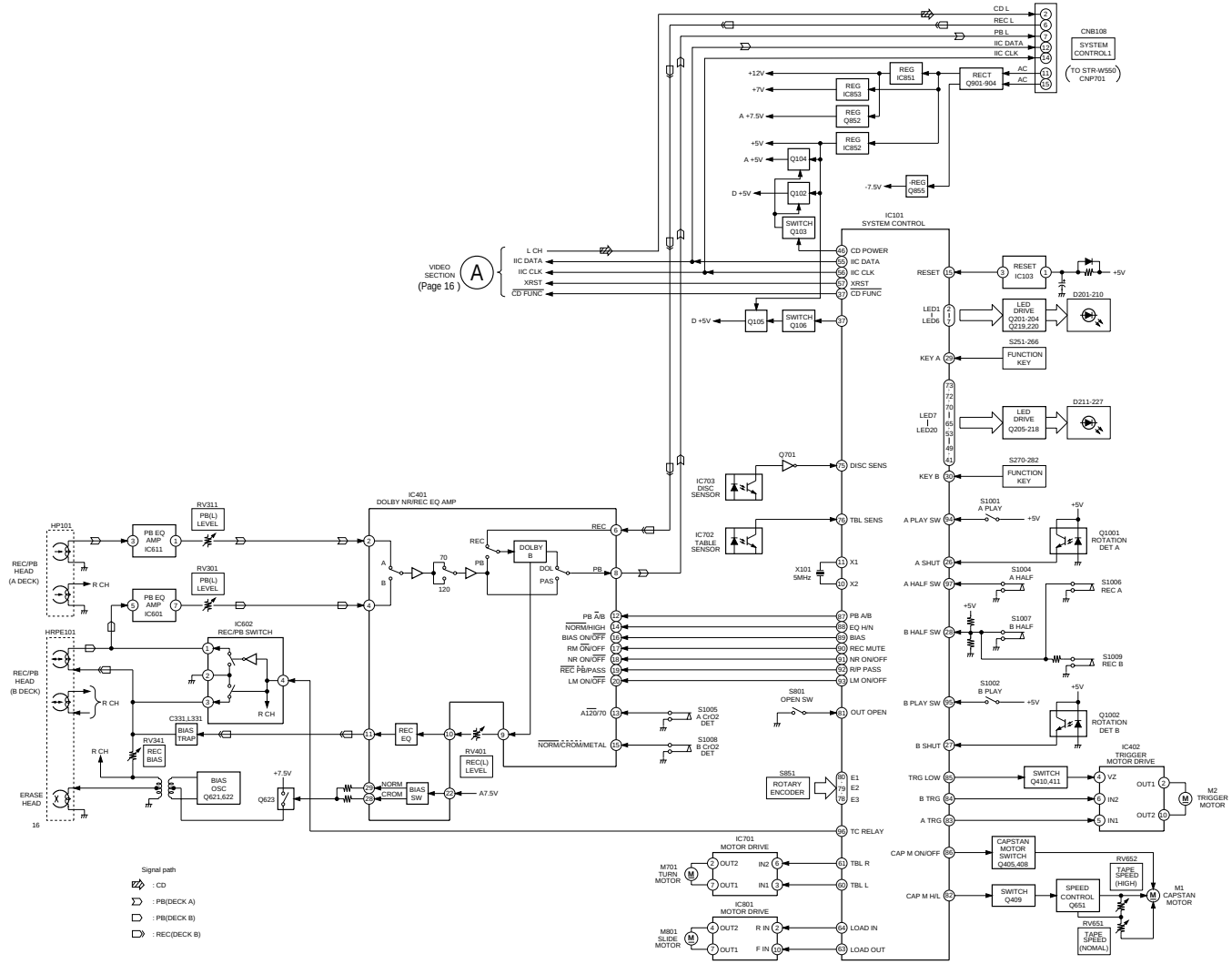


• SIGNAL PATH
: CD
: DIGITAL OUT
: VIDEO

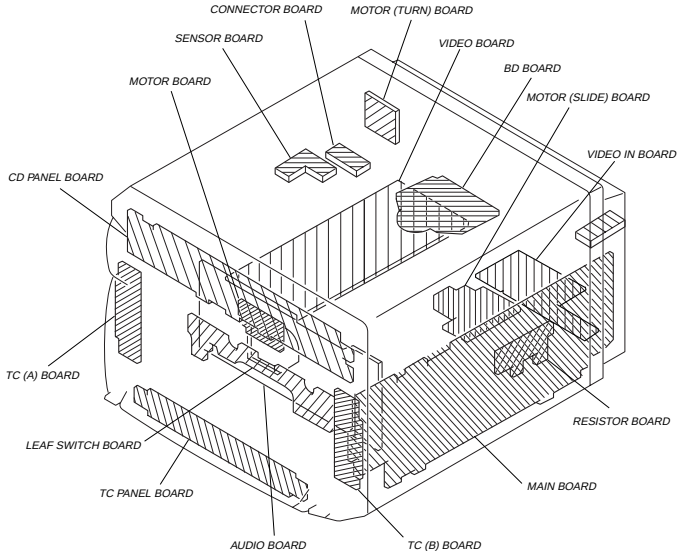
6-2. BLOCK DIAGRAM — VIDEO SECTION —



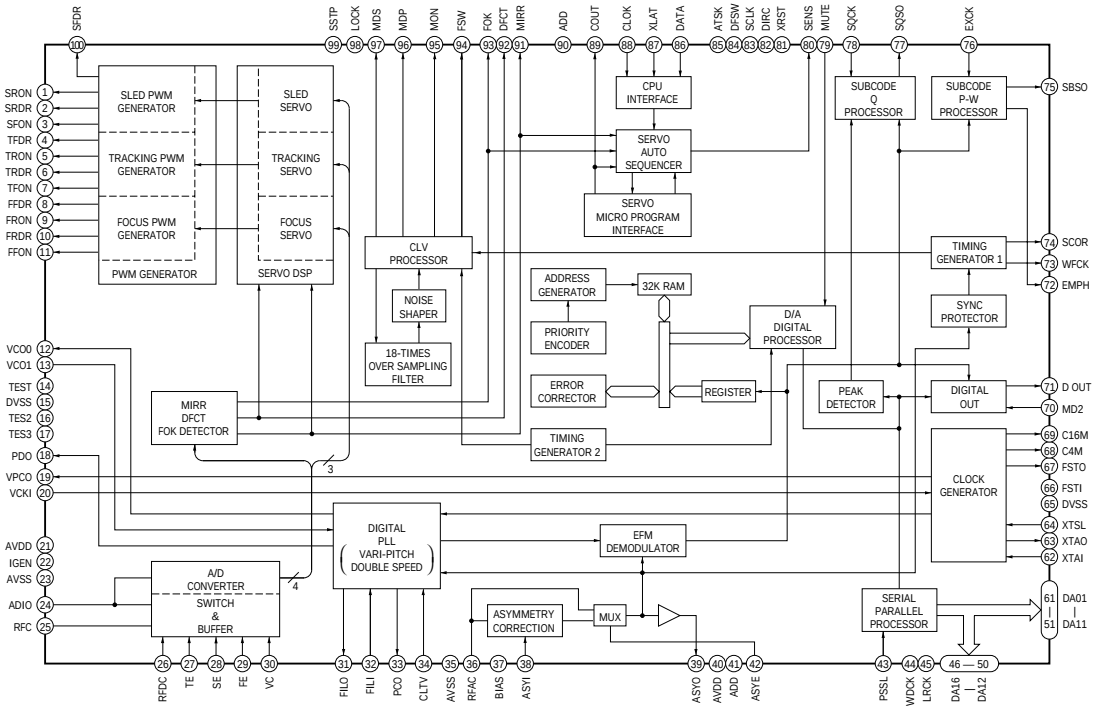
6-3. BLOCK DIAGRAM — DECK/SYSTEM CONTROL SECTION —



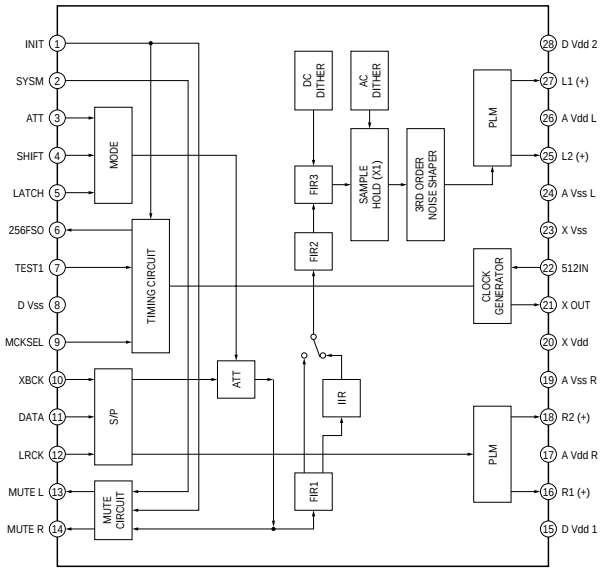
6-4. CIRCUIT BOARDS LOCATION



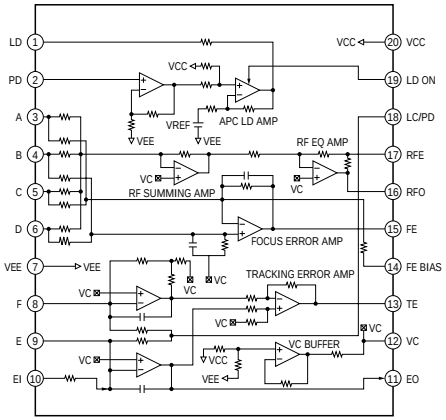
IC101 CXD2545Q



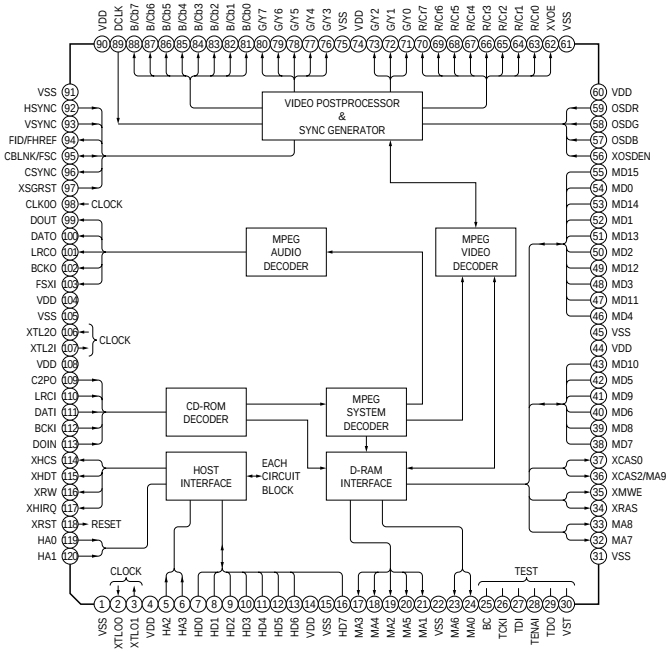
IC101 CXD8567AM



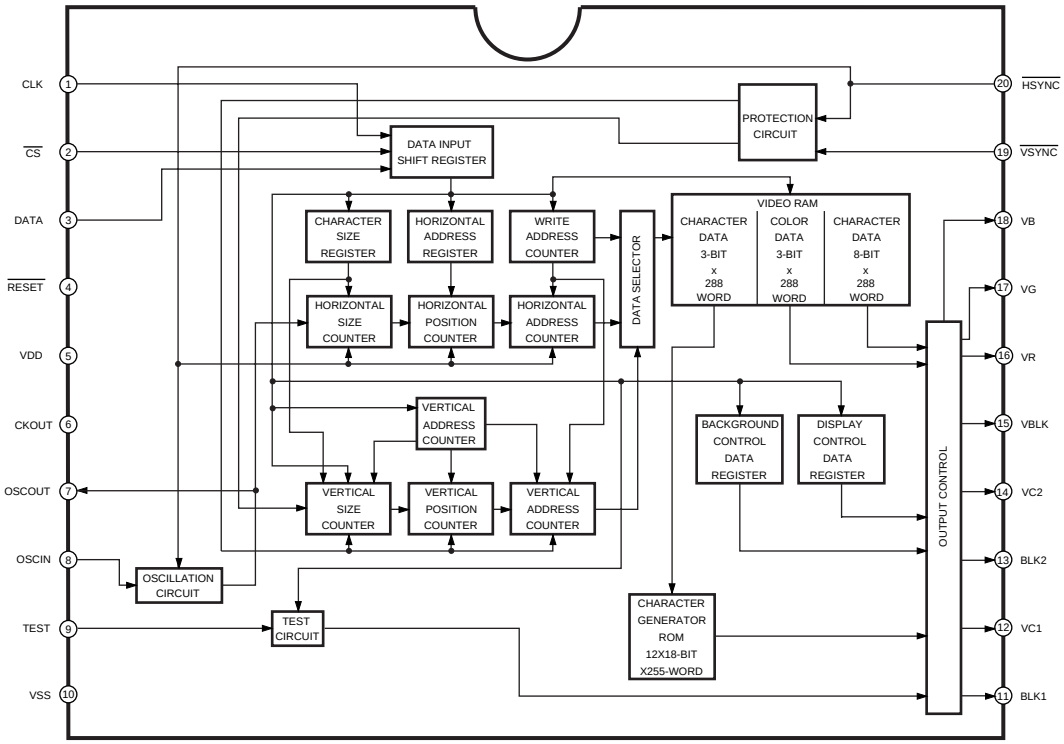
IC103 CXA1821M-T6



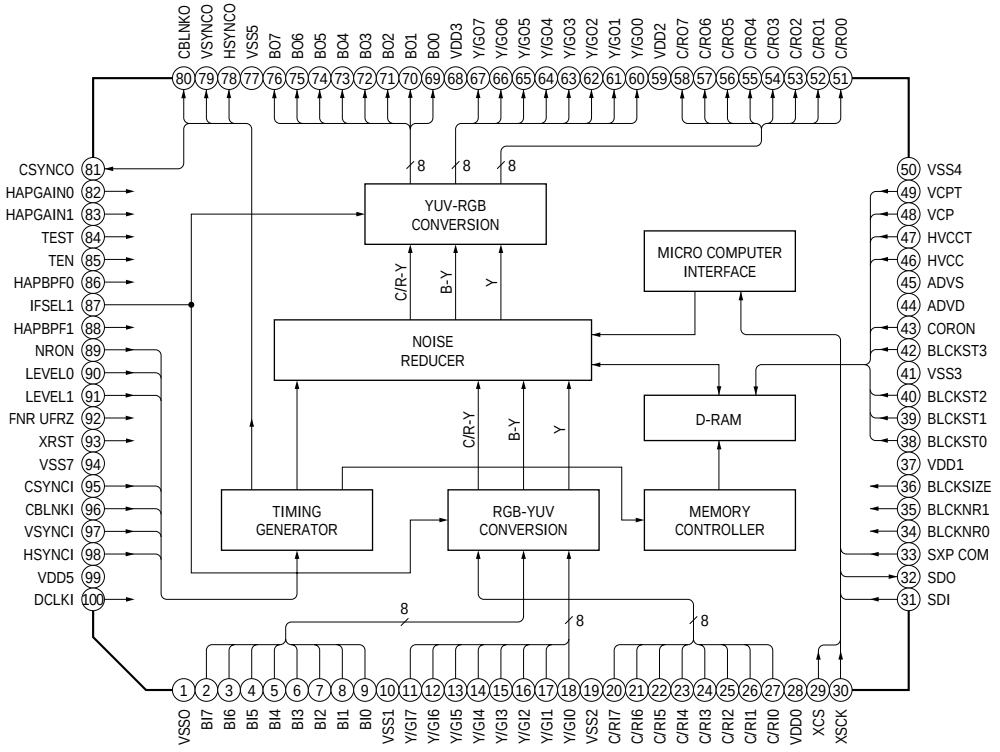
IC201 CXD1852AQ



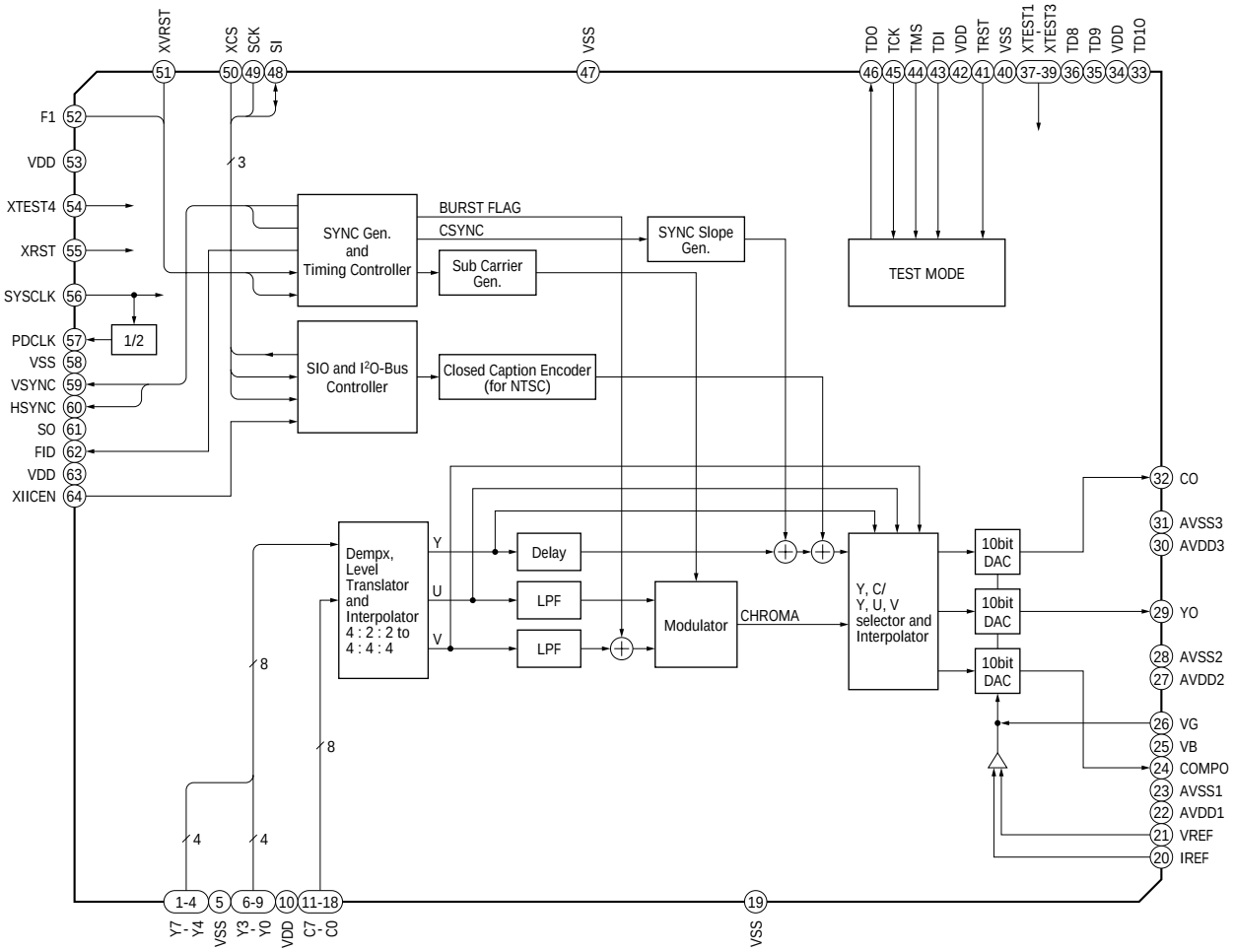
IC271 BU6257AFV-E2



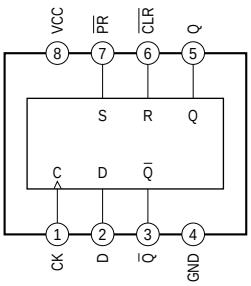
IC301 CXD1854Q



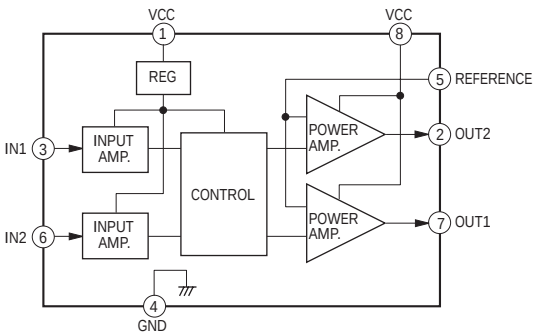
IC401 CXD1913Q



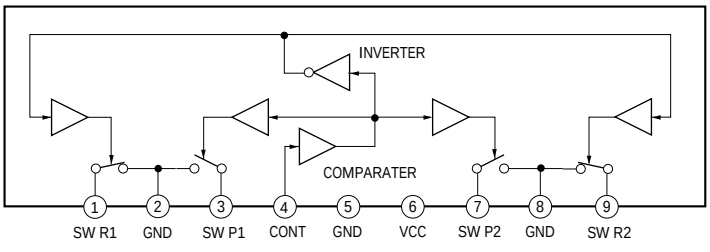
IC272 TC7W74F



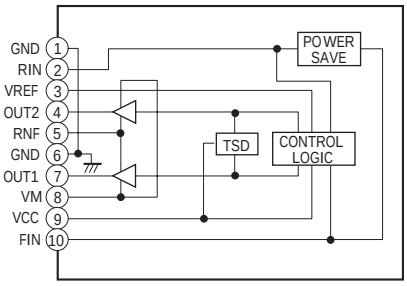
IC701 M54641L



IC601 uPC1330HA



IC801 BA6286N



6-18. IC PIN FUNCTIONS

• IC101 SYSTEM CONTROL (UPD780016YGF-016-3BA)/MAIN board

Pin No.	Pin Name	I/O	Description
1	NC	—	Not used.
2	LED 1	O	LED control.
3	LED 2	O	LED control.
4	LED 5	O	LED control.
5	LED 6	O	LED control.
6	LED 3	O	LED control.
7	LED 4	O	LED control.
8	NC	—	Not used.
9	Test	—	Ground.
10	X2	O	X'tal (5MHz).
11	X1	I	X'tal (5MHz).
12	Vdd	—	5V.
13	XT2	—	Not used.
14	XT1	—	Not used.
15	Reset	I	Reset signal input.
16	NC	—	Not used.
17	NC	—	Not used.
18	SCOR	I	CD Q data request.
19	SOFT TEST	O	Soft operation check port.
20	AC CUT	I	AC power supply check.
21	NC	—	Not used.
22	NC	—	Not used.
23	Vdd	—	5V.
24	AVdd	—	5V.
25	ADJ	I	CD adjustment port.
26	A SHUT	I	Reel pulse detection.
27	B SHUT	I	Reel pulse detection.
28	B-HALF	I	Cassette half detection.
29	KEY A	I	Key input.
30	KEY B	I	Key input.
31	KEY C	I	Key input.
32	ADJ 2	—	Not used.
33	AVSS	—	Ground.
34	SQ DATA IN	I	CD data input.
35	NO USE	—	Not used.
36	SQ CLK	O	Clock for data input.
37	CD-FUNC	—	Not used.
38	NC	—	Ground.
39	NC	—	Ground.
40	VSS	—	Ground.
41	LED 20	—	Not used.
42	SENSE2	I	BD status input.
43	COM D IN	—	Ground.
44	COM D OUT	—	Not used.
45	COM CLK	—	Not used.
46	CD POWER	O	CD power.
47	CD DATA	O	CD data output.
48	CD CLK	O	CD clock.
49	LED 19	O	LED control.
50	LED 18	O	LED control.

Pin No.	Pin Name	I/O	Description
51	LED 17	O	LED control.
52	LED 16	O	LED control.
53	LED 15	O	LED control.
54	IIC-TEMP	—	Not used.
55	IIC DATA	I/O	Communciation data.
56	IIC CLK	I/O	Comunicaton clock.
57	XRST	O	CD reset.
58	XLAT	O	CD latch.
59	FOCUS SW	O	Focus switch.
60	TBL L	O	Table-L.
61	TBL R	O	Table-R.
62	TRAY LED	—	Not used.
63	LOAD OUT	O	Load out.
64	LOAD IN	I	Load in.
65	LED 14	O	LED control.
66	LED 13	O	LED control.
67	LED 12	O	LED control.
68	LED 11	O	LED control.
69	LED 10	O	LED control.
70	LED 9	O	LED control.
71	Vss	—	Ground.
72	LED 8	O	LED control.
73	LED 7	O	LED control.
74	SENS	I	BD status input.
75	DISC SENS	I	Disc sensor.
76	T-SENS	I	Table sensor.
77	UPSW	—	Not used.
78	ENC3	I	Encoder input for CDM38.
79	ENC2	I	Encoder input for CDM38.
80	ENC1	I	Encoder input for CDM38.
81	OUT OPEN	I	Encoder input for CDM38.
82	CAP M H/N	O	Capstan motor H/N selection.
83	A TRG	O	Mechanism timing output control.
84	B TRG	O	Mechanism timing output control.
85	TRG LOW	O	Mechanism timing output control.
86	CAP M ON/OFF	O	Capstan motor ON/OFF switch.
87	PB A/B	O	Playback A/B selection.
88	EQ H/N	O	Equalizer H/L selection.
89	BIAS	O	Bias ON/OFF.
90	REC MUTE	O	REC mute.
91	NR ON/OFF	O	NR ON/OFF.
92	R/P PASS	I/O	REC/PB/PASS select.
93	LM-ON/OFF	O	TC mute.
94	A PLAY SW	I	Mechanism PLAY switch.
95	B PLAY SW	I	Mechanism PLAY switch.
96	TC RELAY	O	Head selection.
97	A HALF	I	Cassette half detection.
98	POWER	—	Not used.
99	NC	—	Not used.
100	NC	—	Not used.

• **IC201 MPEG DECODER (CXD1852AQ)/VIDEO board**

Pin No.	Pin Name	I/O	Description
1	VSS	—	Ground
2	XTL0O	O	Video decoder master clock pin. Input the XTL0I clock or connect an oscillator between XTL0I and XTL0O.
3	XTL0I	I	The recommended frequencies are 27MHz, 28.6363MHz (NTSC 8fsc), and 35.4686 MHz (PAL 8fsc).
4	VDD	—	+5V power supply
5	HA2	I	Address input pin. In some cases, serves as the control signal and data input according to the setting
6	HA3	I	of the control mode.
7	HD0	I/O	Data input/output
8	HD1	I/O	
9	HD2	I/O	
10	HD3	I/O	
11	HD4	I/O	
12	HD5	I/O	
13	HD6	I/O	
14	VDD	—	+5V power supply
15	VSS	—	Ground
16	HD7	I/O	Data input/output
17	MA3	O	Address signal pin. Connect to the DRAM address pin with the same number.
18	MA4	O	
19	MA2	O	
20	MA5	O	
21	MA1	O	
22	VSS	—	Ground
23	MA6	O	Address signal pin. Connect to the DRAM address pin with the same number.
24	MA0	O	
25	BC	I	For test (Not used)
26	TCKI	I	
27	TDI	I	
28	TENAI	I	
29	TDO	I	
30	VST	I	For test (Connect to ground)
31	VSS	—	Ground
32	MA7	O	Address signal pin. Connect to the DRAM address pin with the same number.
33	MA8	O	
34	XRAS	O	RAS signal pin. Connect to the RAS pin of the DRAM. Same for the 256Kw × 16b, 256Kw × 16b × 2, and 512Kw × 8b × 2 DRAM structures.
35	XMWE	O	WE signal pin. Connect to the WE pin of the DRAM.
36	XCAS2/MA9	O	CAS signal. Connect to the CAS pin of the DRAM so as to control the lower bytes of the upper word (256K to 512K-1) for the 256Kw × 16b ¥ 2 DRAM structure. / Address signal pin. Connect to the DRAM address pin with the same number. (Not used)
37	XCAS0	O	CAS signal. Connect to the CAS pin of the DRAM so as to control the lower bytes (MD0 to MD7) for 256Kw × 16b and 512Kw × 8b × 2 DRAM structures, and to control the lower bytes of the lower word (0 to 256K-1) for the 256Kw × 16b × 2 DRAM structure.
38	MD7	I/O	Data input/output signal pin. Connect to the DRAM data pin so that the lower and upper bytes of the data correspond to the CAS0 to CAS3 controls.
39	MD8	I/O	
40	MD6	I/O	

Pin No.	Pin Name	I/O	Description
41	MD9	I/O	Data input/output signal pin. Connect to the DRAM data pin so that the lower and upper bytes of the data correspond to the CAS0 to CAS3 controls.
42	MD5	I/O	
43	MD10	I/O	
44	VDD	—	+5V power supply
45	VSS	—	Ground
46	MD4	I/O	Data input/output signal pin. Connect to the DRAM data pin so that the lower and upper bytes of the data correspond to the CAS0 to CAS3 controls.
47	MD11	I/O	
48	MD3	I/O	
49	MD12	I/O	
50	MD2	I/O	
51	MD13	I/O	
52	MD1	I/O	
53	MD14	I/O	
54	MD0	I/O	
55	MD15	I/O	
56	XOSDEN	I	OSD enable signal
57	OSDB	I	OSD data input pin. When the XOSDEN input is “L”, the color registered in the register specified by this 3 inputs (3 bits) is output as the image data.
58	OSDG	I	
59	OSDR	I	
60	VDD	—	+5V power supply
61	VSS	—	Ground
62	XVOE	I	Video output enable signal pin. When set to “L”, enables the image data output and DCLK output. When set to “H”, disables (high impedance). Output control can also be performed by writing in the register. (Connected to ground)
63	R/Cr0	O	Output pin of the R or Cr signal of the image data. MSB is R/Cr7. Synchronizes with DCLK.
64	R/Cr1	O	
65	R/Cr2	O	
66	R/Cr3	O	
67	R/Cr4	O	
68	R/Cr5	O	
69	R/Cr6	O	
70	R/Cr7	O	
71	G/Y0	O	Output pin of the G or Y signal of the image data. MSB is G/Y7. Synchronizes with DCLK.
72	G/Y1	O	
73	G/Y2	O	
74	VDD	—	+5V power supply
75	VSS	—	Ground
76	G/Y3	O	Output pin of the G or Y signal of the image data. MSB is G/Y7. Synchronizes with DCLK.
77	G/Y4	O	
78	G/Y5	O	
79	G/Y6	O	
80	G/Y7	O	

Pin No.	Pin Name	I/O	Description
81	B/Cb0	O	Output pin of the B or Cb signal of the image data. MSB is B/Cb7. Synchronizes with DCLK. (Not used)
82	B/Cb1	O	
83	B/Cb2	O	
84	B/Cb3	O	
85	B/Cb4	O	
86	B/Cb5	O	
87	B/Cb6	O	
88	B/Cb7	O	
89	DCLK	I	Dot clock (DCLK) signal pin. The DCLK frequency is normally 13.5MHz. The DCLK can be input from this pin or can be made by frequency-dividing (1/integer) the clock input from XTL0I.
90	VDD	—	+5V power supply
91	VSS	—	Ground
92	HSYNC	I	Horizontal sync signal pin. When using the built-in sync generator, a signal is made by frequency-dividing the dot clock (DCLK). Serves as the input when not using the built-in sync generator.
93	VSYNC	I	Vertical sync signal pin. When using the built-in sync generator, a signal is made by frequency-dividing the DCLK. Serves as the input when not using the built-in sync generator.
94	FID/FHREF	I	Field determination signal. Odd field correspond to “H” and even field correspond to “L”. Serves as an output when the built-in sync generator is used, and as an input when not. / Signal obtained by frequency-dividing the clock input from XTL0I or XTLI. When the input clock is 8 fsc, it can be used as the horizontal sync signal phase comparison reference signal.
95	CBLNK/FSC	I	Composite blanking signal pin. Serves as an output when the built-in sync generator is used, and as an input when not. / Signal obtained by frequency-dividing the clock input from XTL0I or XTLI. When the input clock is 8 fsc, it can be used as the fsc signal.
96	CSYNC	O	Composite sync signal pin. A signal is made by frequency-dividing the DCLK. Cannot be input. (Not used)
97	XSGRST	I	Sync generator reset signal pin. The signal generator is initialized by setting this pin to “L”.
98	CLK0O	O	Outputs the frequency-divided clock of the clock input to XTL0I. The frequency dividing ratio can be selected from 1/2, 1/4, and 1/8. (Not used)
99	DOUT	O	Digital output (Not used)
100	DATO	O	Audio serial data output to Audio D/A converter (IC101)
101	LRCO	O	LR clock output to Audio D/A converter (IC101)
102	BCKO	O	Bit clock output to Audio D/A converter (IC101)
103	FSXI	I	Input 384fs (16.9344MHz) or 768fs (33.8688MHz).
104	VDD	—	+5V power supply
105	VSS	—	Ground
106	XTL2O	O	CD-ROM decoder, audio decoder master clock. Input a clock to the XTL21 or connect an oscillator between XTL2I and XTL2O. The recommended frequency is 45 MHz. This clock is for the internal circuit. Does not synchronize with inputs and outputs.
107	XTL2I	I	
108	VDD	—	+5V power supply
109	C2PO	I	C2 pointer input (CXD2545Q)
110	LRCI	I	LR clock input (CXD2545Q)
111	DATI	I	Serial data input (CXD2545Q)
112	BCKI	I	Bit clock input (CXD2545Q)
113	DOIN	I	Digital input signal (Not used)
114	XHCS	I	Register access chip select signal pin.
115	XHDT	I/O	Data acknowledge/wait signal pin for DMA transmission, register access, transparent memory access.
116	HRW	I	Register access control signal pin.
117	XHIRQ	O	Interrupt request signal
118	XRST	I	Hardware reset input pin. When set to “L”, all registers and operations are reset and initialized.
119	HA0	I	Address input pin. In some cases, serves as the control signal and data input according to the setting of the control mode.
120	HA1	I	

• IC301 NOISE REDUCTION (CXD1854Q)/VIDEO board

Pin No.	Pin Name	I/O	Description
1	VSS	—	Ground
2	BI7	I	[MSB]
3	BI6	I	
4	BI5	I	
5	BI4	I	
6	BI3	I	B input 0–7 (Connect to ground)
7	BI2	I	
8	BI1	I	
9	BI0	I	[LSB]
10	VSS	—	Ground
11	Y/GI7	I	[MSB]
12	Y/GI6	I	
13	Y/GI5	I	
14	Y/GI4	I	G (Y) input 0–7
15	Y/GI3	I	
16	Y/GI2	I	
17	Y/GI1	I	
18	Y/GI0	I	[LSB]
19	VSS	—	Ground
20	C/RI7	I	[MSB]
21	C/RI6	I	
22	C/RI5	I	
23	C/RI4	I	R (Cb/Cr) input 0–7
24	C/RI3	I	
25	C/RI2	I	
26	C/RI1	I	
27	C/RI0	I	[LSB]
28	VDD	—	Power supply (+5V)
29	XCS	I	Chip select input from IIC interface (IC901)
30	XSCK	I	Serial clock input from IIC interface (IC901)
31	SDI	I	Serial data input from IIC interface (IC901)
32	SDO	O	Serial data output. (Not used)
33	SXP COM	I	Serial/parallel select
34	BLCKNR0	I	NR effect level control input
35	BLCKNR1	I	NR effect level control input
36	BLCKSIZE	I	Block size select input
37	VDD	—	Power supply (+5V)
38	BLCKST0	I	RAS signal for DRAM (Connected to ground)
39	BLCKST1	I	CAS signal for DRAM (Connected to ground)
40	BLCKST2	I	Write enable signal for DRAM (Connected to ground)
41	VSS	—	Ground
42	BLOCKST3	I	DRAM data input (Connected to ground)
43	CORON	I	DRAM data input (Connected to +5V)
44	ADVD	I	DRAM data input (Connected to +5V)
45	ADVS	I	DRAM data input (Connected to ground)
46	HVCC	I	DRAM data input (Not used)
47	HVCCT	I	DRAM data input (Connected to +5V)
48	VCP	I	DRAM data input (Not used)
49	VCPT	I	DRAM data input (Connected to ground)
50	VSS	—	Ground

Pin No.	Pin Name	I/O	Description
51	C/RO0	O	[MSB]
52	C/RO1	O	
53	C/RO2	O	
54	C/RO3	O	R (Cb/Cr) output 0–7
55	C/RO4	O	
56	C/RO5	O	
57	C/RO6	O	
58	C/RO7	O	[LSB]
59	VDD	—	Power supply (+5V)
60	Y/GO7	O	[MSB]
61	Y/GO6	O	
62	Y/GO5	O	
63	Y/GO4	O	G (Y) output 0–7
64	Y/GO3	O	
65	Y/GO2	O	
66	Y/GO1	O	
67	Y/GO0	O	[LSB]
68	VDD	—	Power supply (+5V)
69	BO0	O	[MSB]
70	BO1	O	
71	BO2	O	
72	BO3	O	B output 0–7 (Not used)
73	BO4	O	
74	BO5	O	
75	BO6	O	
76	BO7	O	[LSB]
77	VSS	—	Ground
78	HSYO	O	H SYNC output (Not used)
79	VSYO	O	V SYNC output (Not used)
80	CBLO	O	Composit blanking output (Not used)
81	CSYO	O	Composit SYNC output (Not used)
82	HAPGAIN0	I	Profile cooperation effect level control
83	HAPGAIN1	I	Profile cooperation effect level control
84	TEST	I	Test pin (Connect to ground)
85	TEN	I	Test pin (Connect to +5V)
86	HAPBPF0	I	Profile cooperation correction band control
87	IFSEL 1	I	Matrix select Y/C, RGB (Connect to ground)
88	HAPBPF1	I	Profile cooperation correction band control
89	NRON	I	Noise reducer on/off (L: off, H: on)
90	LEVEL 0	I	Noise reducer level select
91	LEVEL 1	I	0: weak –3: strong (Not used)
92	FNR UFRZ	I	NR feedback coefficient user processor select (Connect to +5V)
93	XRST	I	Power on reset
94	VSS	—	Ground
95	CSYI	I	Composit SYNC input (Connect to ground)
96	CBLI	I	Composit blanking input (Connect to +5V)
97	VSYI	I	V SYNC input
98	HSYI	I	H SYNC input
99	VDD	—	Power supply (+5V)
100	DCLKI	I	Dot clock input (13.5MHz)

• IC401 10 BIT VIDEO D/A CONVERTER (CXD1913Q)/VIDEO board

Pin No.	Pin Name	I/O	Description
1	Y7	I	8-bit pixel data input pins (PD0 to 7). When control register bit "PIF MODE"="0", serve as input pins for multiplexed Y, Cb, Cr signals. When control register bit "PIF MODE"="1", serve as input pins for Y signal.
2	Y6	I	
3	Y5	I	
4	Y4	I	
5	VSS	—	Digital ground
6	Y3	I	8-bit pixel data input pins (PD0 to 7). When control register bit "PIF MODE"="0", serve as input pins for multiplexed Y, Cb, Cr signals. When control register bit "PIF MODE"="1", serve as input pins for Y signal.
7	Y2	I	
8	Y1	I	
9	Y0	I	
10	VDD	—	Digital power supply
11	C7	I	8-bit pixel data input pins/test data bus. When control register bit "PIF MODE"="0", these input pins cannot be used. When control register bit "PIF MODE"="1", serve as input pins for multiplexed Cb, Cr signals. In the test mode, used for internal circuit test data bus. The test mode is allowed to use only for device vendors.
12	C6	I	
13	C5	I	
14	C4	I	
15	C3	I	
16	C2	I	
17	C1	I	
18	C0	I	
19	VSS	—	Digital ground
20	IREF	O	Reference current output pin. Connect a resistor ×16 times ("16R") of the output resistance value "R"
21	VREF	I	Voltage reference input pin. Sets the output full-scale value
22	AVDD1	—	Analog power supply
23	AVSS1	—	Analog ground
24	COMPO	O	10-bit D/A converter output. When control register bit "YC/YUV"="1", outputs the composite signal. When control register bit "YC/YUV"="0", outputs the color difference (V) signal.
25	VB	I	Connect to Vss with an approx. 0.1 µF capacitor
26	VG	I	Connect to AVDD with an approx. 0.1 µF capacitor
27	AVDD2	—	Analog power supply
28	AVSS2	—	Analog ground
29	YOUT	O	10 bit D/A converter output. (Luminance (Y) signal output.)
30	AVDD3	—	Analog power supply
31	AVSS3	—	Analog ground
32	COUT	O	10-bit D/A converter output. When control register bit "YC/YUV"="1", outputs the chroma (C) signal. When control register bit "YC/YUV"="0", outputs the color difference (U) signal.
33	TD10	O	Test data bus. In the test mode, used for internal circuit test data bus. The test mode is allowed to use only for device vendors (Not used).
34	VDD	—	Digital power supply
35	TD9	O	Test data bus. In the test mode, used for internal circuit test data bus. The test mode is allowed to use only for device vendors (Not used)
36	TD8	O	
37	XTEST1	I	Test mode control input pin. Pulled-up. When these pins are "H", CXD1913Q is not in the test mode. The test mode is allowed to use only for device vendors
38	XTEST2	I	
39	XTEST3	I	
40	VSS	—	Digital ground
41	TRST	I	Test mode reset input pin. During power on/reset, set to "L" for more than 40 clocks (SYSCLK) (Not used)
42	VDD	—	Digital power supply
43	TDI	I	Test mode control input pin. (Not used)
44	TMS	I	

Pin No.	Pin Name	I/O	Description
45	TCK	I	Test mode control input pin. Fix at “H”
46	TDO	O	Test data bus pin. (Not used)
47	VSS	—	Digital ground
48	SI	I	The functions of this pin are selected by Pin 64 XIICEN. When the XIICEN pin is “H”, sets into the SONY SIO mode, and becomes the SI serial data input pin. When the XIICEN pin is “L”, sets into the I²C-BUS mode, and becomes the SDA input/output pin
49	SCK	I	The functions of this pin are selected by Pin 64 XIICEN. When the XIICEN pin is “H”, sets into the SONY SIO mode, and becomes the SCK serial clock input pin. When the XIICEN pin is “L”, sets into the I²C-BUS mode, and becomes the SCL input pin
50	XCS	I	The functions of this pin are selected by Pin 64 XIICEN. Pulled-up. When the XIICEN pin is “H”, sets into the SONY SIO mode, and becomes the XCK chip select input pin. When the XIICEN pin is “L”, sets into the I²C-BUS mode, and becomes the SA slave address selection input signal which selects the I²C-BUS slave address
51	XVRST	I	Active “L” vertical sync reset input pin. Pulled-up. Used for synchronizing external vertical sync and internal vertical sync. When XVRST is “L”, the internal digital sync generator is reset according to the F1 state
52	F1	I	Field ID input pin. When externally synchronizing with the XVRST signal, the field to be reset is determined by this signal. “H” indicates the first field. “L” indicates the second field
53	VDD	—	Digital power supply
54	XTEST4	I	Test mode control input pin. Pulled-up. When these pins are “H”, CXD1913Q is not s test mode. The test mode is allowed to use only for device vendors
55	XRST	I	System reset input pin when active “L”. During power on/reset, set to “L” for more than 40 clocks (SYSCLK)
56	SYSCLK	I	System clock input pin. To generate the correct sub carrier frequency, precisely 27MHz is required
57	PDCLK	O	13.5MHz pixel data clock output pin. This clock is obtained by 1/2 frequency-dividing SYSCLK. Used only in the 16-bit pixel data mode
58	VSS	—	Digital ground
59	VSYNC	O	V.sync signal output
60	HSYNC	O	H.sync signal output
61	SO	O	The functions of this pin are selected by Pin 64 XIICEN. When the XIICEN pin is “H”, sets into the SONY SIO mode, and becomes the S0 serial-out output pin. When the XIICEN pin is “L”, this pin is not used and sets into high impedance (Not used)
62	FID	O	Field ID output. When control register bit “FDS”=“1”, “L” indicates the first field and “H” indicates the second field. When control register bit “FDS”=“0”, “H” indicates the first field and “L” indicates the second field
63	VDD	—	Digital power supply
64	XIICEN	I	Serial interface mode selection input pin. Pulled-up. When “L”, Pins 48 to 50, and 61 set into the I²C-BUS mode. When “H”, Pins 48 to 50, and 61 set into the SONY SOP mode

• IC701 MECHANISM CONTROL (HD6433032SK12F)/VIDEO board

Pin No.	Pin Name	I/O	Description
1	CMD0	I/O	Input/output terminal exchanging data bus 0 with IIC interface (IC901)
2	CMD1	I/O	Input/output terminal exchanging data bus 1 with IIC interface (IC901)
3	CMD2	I/O	Input/output terminal exchanging data bus 2 with IIC interface (IC901)
4	CMD3	I/O	Input/output terminal exchanging data bus 3 with IIC interface (IC901)
5	SACK	O	Outputs command acknowledge to IIC interface (IC901)
6	QINT	O	Outputs command output pulses to IIC interface (IC901)
7	VDAC-XLAT	O	Serial data latch pulse output to Video D/A converter (IC401)
8	DF-XLAT	O	Serial data latch pulse output to Audio D/A converter (IC101)
9	P90/TXD	—	Not used
10	SUBQ	I	Sub Q 80bit input (CXD2545Q)
11	SQCK	O	SQSO readout clock output (CXD2545Q)
12	VSS	—	Ground
13 to 20	D0 to D7	I/O	Data bus input/output (IC201, 751)
21	VCC	—	Connect to the power supply (+5V)
22 to 29	A0 to A7	O	Address bus output (IC201, 751)
30	VSS	—	Ground
31 to 35	A8 to A12	O	Address bus output (IC201, 751)
36 to 39	A13 to A16	O	Address bus output (Not used)
40, 41	A17, A18	O	Addres bus output (IC772)
42	A19	O	Address bus output (Not used)
43	$\overline{\text{WAIT}}$	I	BUS control wait input (IC201)
44	MD0	I	Operation mode setting terminal (Connected to +5V)
45	MD1	I	Operation mode setting terminal (Connected to ground)
46	ϕ	O	System clock output (Not used)
47	$\overline{\text{STBY}}$	I	Shifts to the hardware standby mode when the standby terminal becomes “Low”. (Unable to use H level fixed) (Connected to +5V)
48	$\overline{\text{RESET}}$	I	Set into reset when the reset input pin becomes “Low”. (IC901)
49	NM1	I	Requests mask disable interruption. (Unable to use H level fixed) (Connected to +5V)
50	VSS	—	Ground
51	EXTAL	I	Connected to the Crystal oscillator. The EXTAL pin is also able to input external clocks. (10 MHz)
52	XTAL	I	Connected to the Crystal oscillator. (10 MHz)
53	VCC	—	Power supply (+5V)
54	$\overline{\text{AS}}$	O	When the address strobe pin is “Low”, indicates that address outputs on the address bus are valid. (IC772)
55	$\overline{\text{RD}}$	O	When the read pin is “Low”, indicates that the external addresses space is in the read state. (IC201, 751)
56	$\overline{\text{WR}}$	O	When the read pin is “Low”, indicates that the external addresses space is in the write state and the data bus are valid. (IC201, 751)
57	$\overline{\text{RESO}}$	O	Reset output (Not used)
58	AVSS	—	A/D converter (Pin62-69) ground
59	TEST0	I	Color-bar test input (“L” = test)
60	TEST1	I	AFADJ test input (“L” = test)
61	TE	I	ADJ test input (“L” = test)
62	SENS	I	Internal state (SENSE) monitor input (CXD2545Q)
63	DAC-SELECT	I	Audio D/A converter select mode setting terminal (Connected to +5V)
64	NPIN	I	NTSC/PAL output mode setting terminal (0V : NTSC, 1.5V : AUTO, 3V : PAL)
65	VSS	—	Ground
66	$\overline{\text{VREQ}}$	I	Not used
67	VREF	I	A/D converter (Pin62-69) reference voltage input (Connected to +5V)

Pin No.	Pin Name	I/O	Description
68	AVCC	—	A/D converter (Pin62-29) power supply (Connected to +5V)
69	CHECK-LED	O	Check LED control (Error : flashing)
70	XHIRQ	I	Interruption request input from MPEG decoder
71	SCOR	I	Subcode sync input (CXD2545Q)
72	MREQ	I	Inputs command request from IIC interface (IC901)
73	DATA	O	Serial data output
74	AMUTE	O	Mute output (“H” = mute)
75	LDON	O	Laser diode ON/OFF output
76	XLT	O	Latch output (CXD2545Q)
77	SCLK	O	SENS serial data reading clock output (CXD2545Q)
78	CLK	O	Serial data clock output
79	NR-SEL	I	Connected to +5V
80	—	—	Not used

• IC901 IC INTERFACE (uPD780016YGF-012-3BA)/VIDEO board

Pin No.	Pin Name	I/O	Description
1 to 8	P80 to P87	I	Connected to ground
9	TEST	—	Connected to ground
10	X2	O	X' tall (5MHz)
11	X1	I	X' tall (5MHz)
12	VDD	—	Power supply +5V
13	XT2	—	Not used
14	XT1	—	Connected to +5V
15	RESET	I	System reset input
16, 17	PO0, PO1	I	Not used (Fixed at "L")
18	QINT	I	CD-BUS interrupt input
19 to 22	PO3 to PO6	I	Not used (Fixed at "L")
23	VDD	—	Power supply +5V
24	AVDD	—	Power supply +5V
25 to 32	P10 to P17	I	Connected to ground
33	AVSS	—	Ground
34	CMD0	I/O	Input/output terminal exchanging data bus 0 with mecha-con, (IC901)
35	CMD1	I/O	Input/output terminal exchanging data bus 1 with mecha-con, (IC901)
36	CMD2	I/O	Input/output terminal exchanging data bus 2 with mecha-con, (IC901)
37	CMD3	I/O	Input/output terminal exchanging data bus 3 with mecha-con, (IC901)
38, 39	P24, P25	I	Connected to ground
40	VSS	—	Ground
41, 42	P26, P27	I	Connected to ground
43	MREQ	O	Output command request to mecha-con. (IC701)
44	SACK	I	Input command acknowledge from mecha-con. (IC701)
45	CDGM	I	Not used (Fixed at "L")
46	P93	I	Connected to ground
47	MDATA	O	Serial data output (IC271, 301)
48	MCLK	O	Serial clock output (IC271, 301)
49	OS-XLAT	O	Serial latch output to OSD (IC271)
50	G-XLAT	O	Not used
51	G-XRST	O	Not used
52	CD-XRST	O	Video CD section reset output
53	CDPOW	O	Not used
54	DOUT	O	Not used
55	IIC-DATA	I	Serial data input from master control (IC701)
56	IIC-CLK	I	Serial clock input from master control (IC701)
57 to 64	P40 to P47	I	Connected to ground
65	NRON	O	Not used
66	LEVEL0	O	Not used
67	LEVEL1	O	Not used
68	NR-XCS	O	Chip select output to noise reduction (IC301)
69, 70	P54, P55	I	Connected to ground
71	VSS	I	Ground
72, 73	P56, P57	I	Connected to ground
74 to 81	P60 to P67	I	Connected to ground
82 to 85	P100 to P103	I	Connected to ground
86 to 93	P30 to P37	I	Connected to ground
94 to 100	P150 to P156	I	Connected to ground

SECTION 7
EXPLODED VIEWS

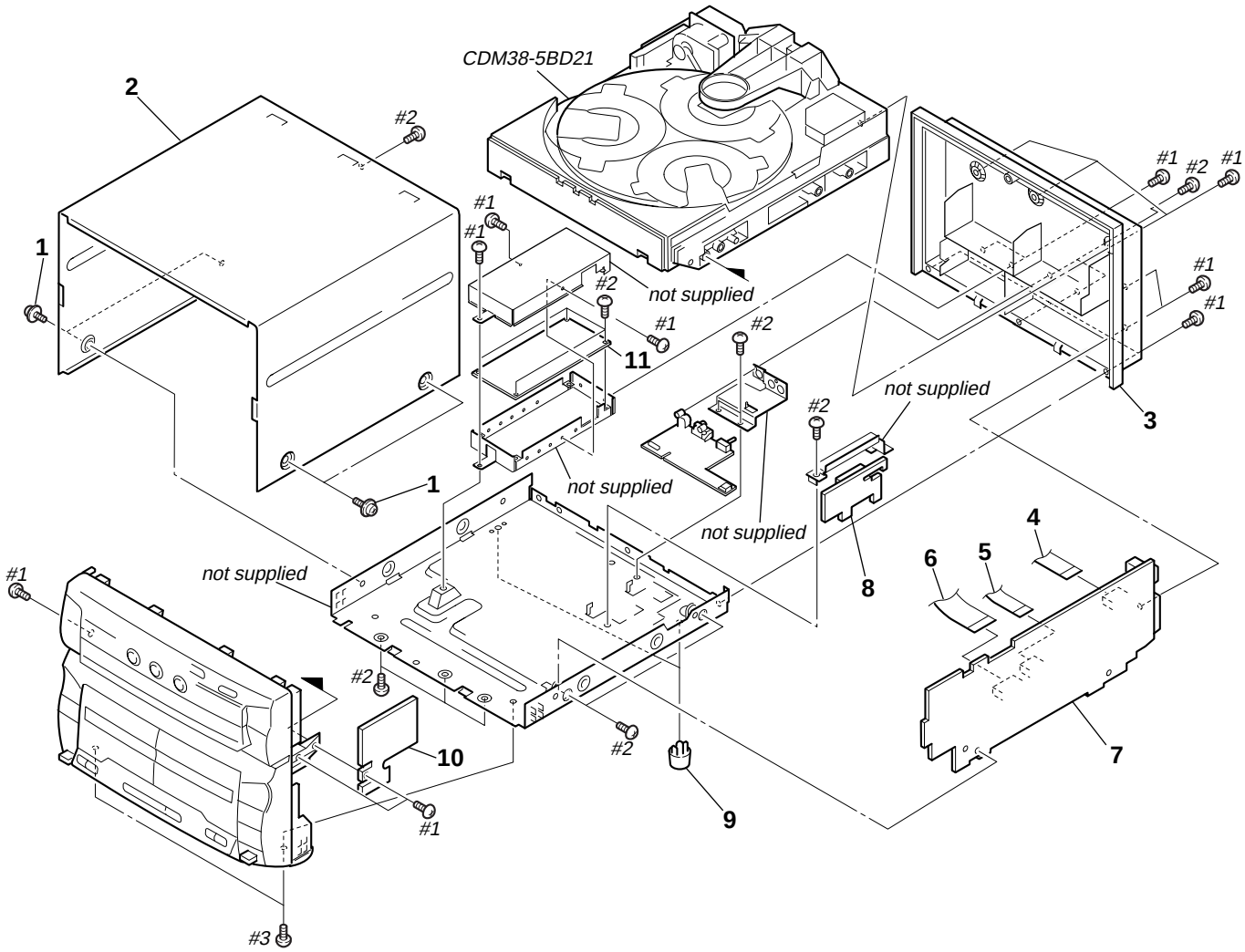
Note:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

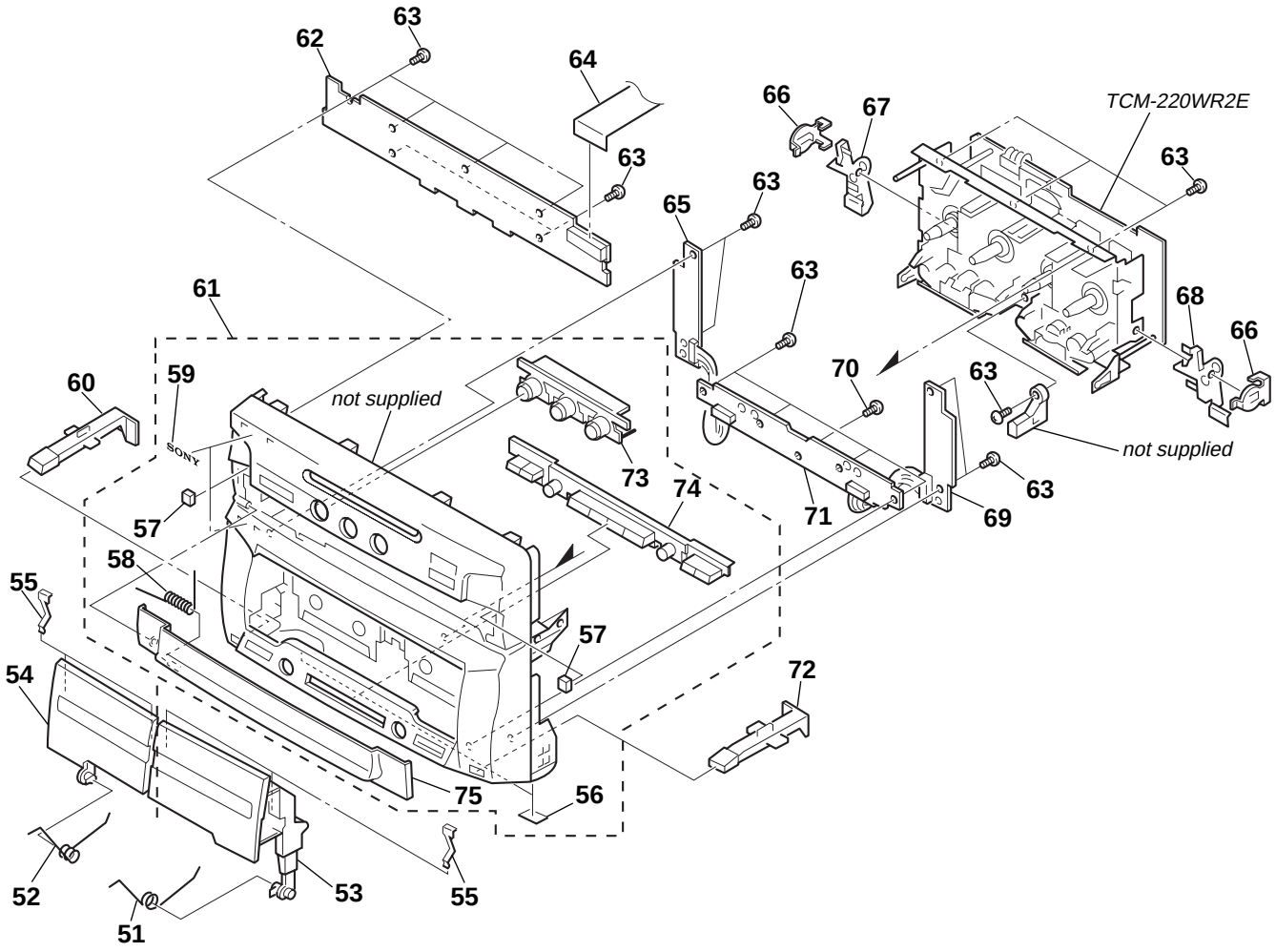
- Abbreviation
  MY : Malaysia CH : Chinese
  SP : Singapore TH : Thai
  HK : Hong Kong IA : Indonesian
  KR : Korean

7-1. MAIN SECTION



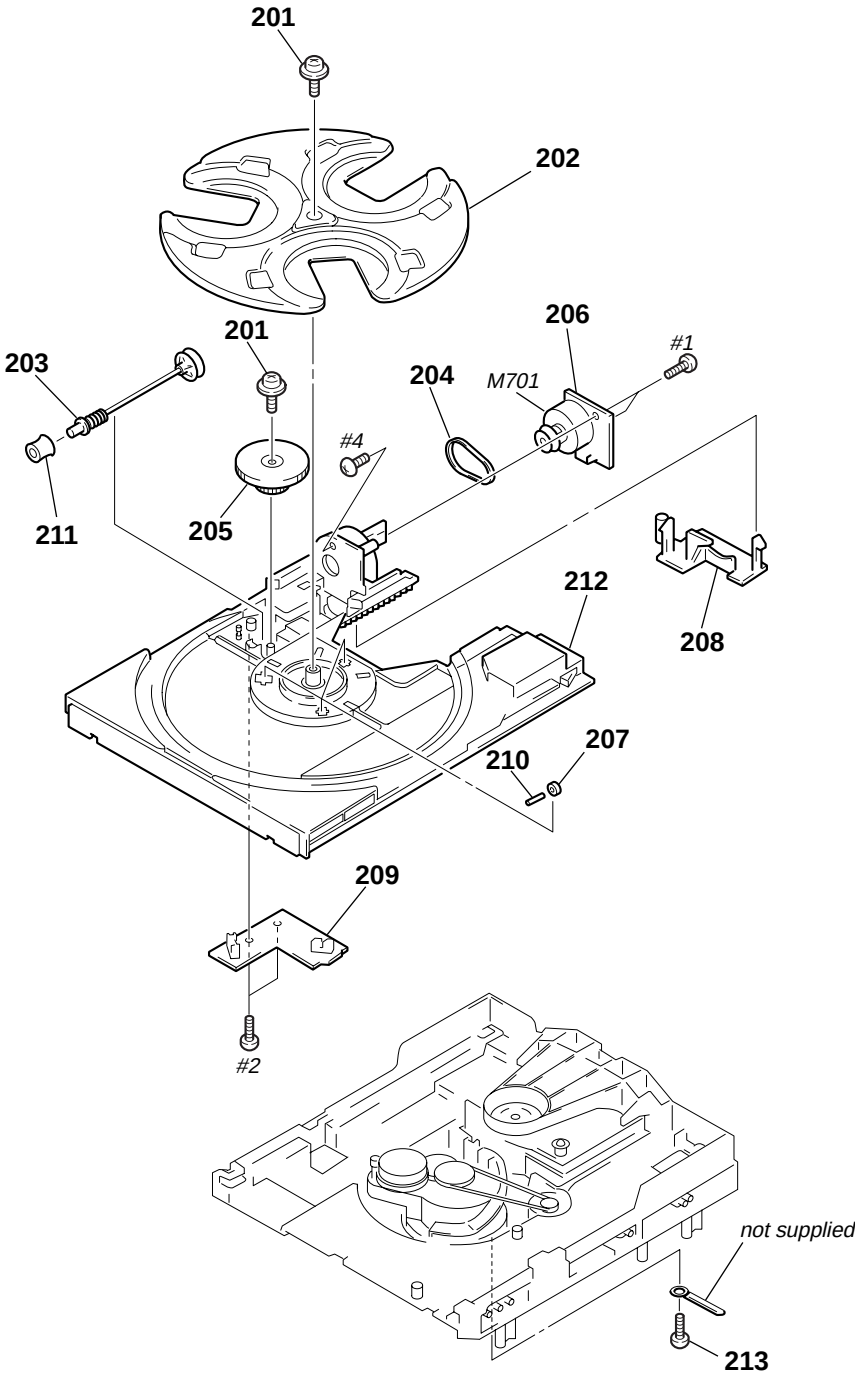
Ref. No.	Part No.	Description	Remarks
1	3-363-099-11	SCREW (CASE 3 TP2)	
* 2	4-991-364-31	CASE	
* 3	4-991-349-11	PANEL, BACK	
4	1-751-086-11	WIRE (FLAT TYPE) (13 CORE)	
5	1-765-325-11	WIRE (FLAT TYPE) (11 CORE)	
6	1-773-155-11	WIRE (FLAT TYPE) (21 CORE)	
* 7	A-4403-279-A	MAIN BOARD, COMPLETE (SPKR,HK,CH)	
* 7	A-4403-712-A	MAIN BOARD, COMPLETE (TH)	
* 7	A-4403-716-A	MAIN BOARD, COMPLETE (IA)	
* 8	1-666-004-11	RESISTOR BOARD	
9	4-970-381-11	FOOT (REAR)	
* 10	1-666-009-11	DUMMY BOARD	
* 11	A-4398-587-A	VIDEO BOARD, COMPLETE (IA,TH)	
* 11	A-4398-576-A	VIDEO BOARD, COMPLETE (SPKR,HK,CH)	
* 12	1-666-010-11	VIDEO IN BOARD	

7-2. FRONT PANEL SECTION



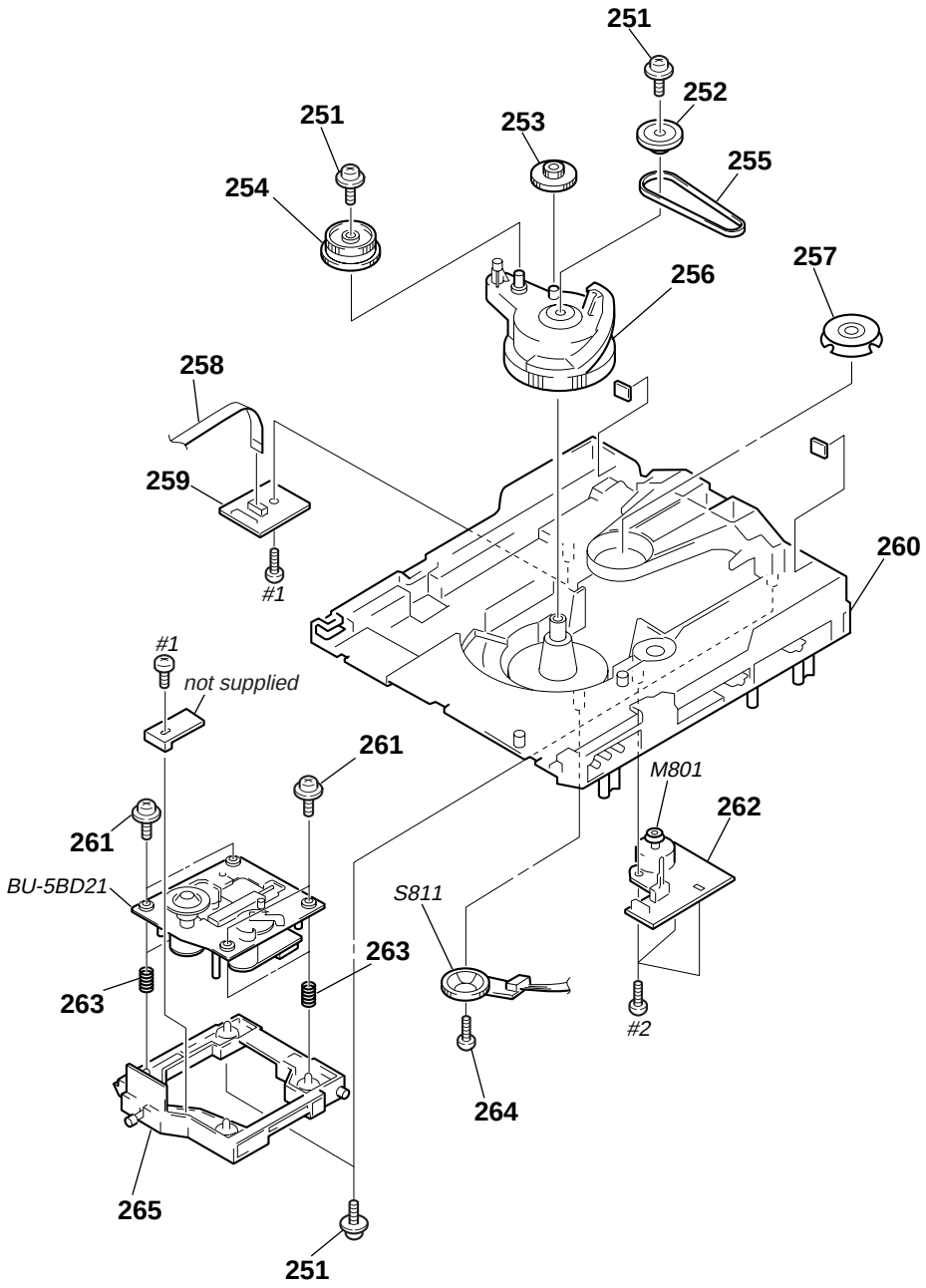
Ref. No.	Part No.	Description	Remarks
51	4-959-232-15	SPRING (R), TORSION	
52	4-959-231-15	SPRING (L), TORSION	
53	X-4948-605-11	LID (B) ASSY, CASSETTE	
54	X-4948-604-11	LID (A) ASSY, CASSETTE	
55	4-959-229-10	DETENT, CASSETTE	
56	4-977-358-10	CUSHION (8X12.5)	
57	4-991-366-00	CUSHION	
58	4-991-795-15	SPRING	
59	4-962-708-11	EMBLEM (4-A), SONY	
60	4-991-341-03	BUTTON (EJECT A)	
61	X-4948-876-11	PANEL ASSY, FRONT	
* 62	A-4403-280-A	CD PANEL BOARD, COMPLE	
63	4-951-620-03	SCREW (2.6X8), +BVTP	
64	1-773-052-11	WIRE (FLAT TYPE) (17 CORE)	
* 65	1-666-007-10	MIC (A) BOARD	
66	3-354-957-01	JOINT (LOCK LEVER)	
* 67	3-354-953-01	LEVER (LOCK LEVER L)	
* 68	3-354-954-01	LEVER (LOCK LEVER R)	
* 69	1-666-008-10	MIC (B) BOARD	
70	4-951-620-15	SCREW (2.6X10), +BVTP	
* 71	A-4398-496-A	PC PANEL BOARD, COMPLETE	
72	4-991-342-03	BUTTON (EJECT B)	
73	X-4948-607-B1	BUTTON (3CD) ASSY	
74	X-4948-608-B1	BUTTON (TC) ASSY	
75	4-991-332-01	PANEL, LOADING	

7-3. CD MECHANISM DECK SECTION-1 (CDM38-5BD21)



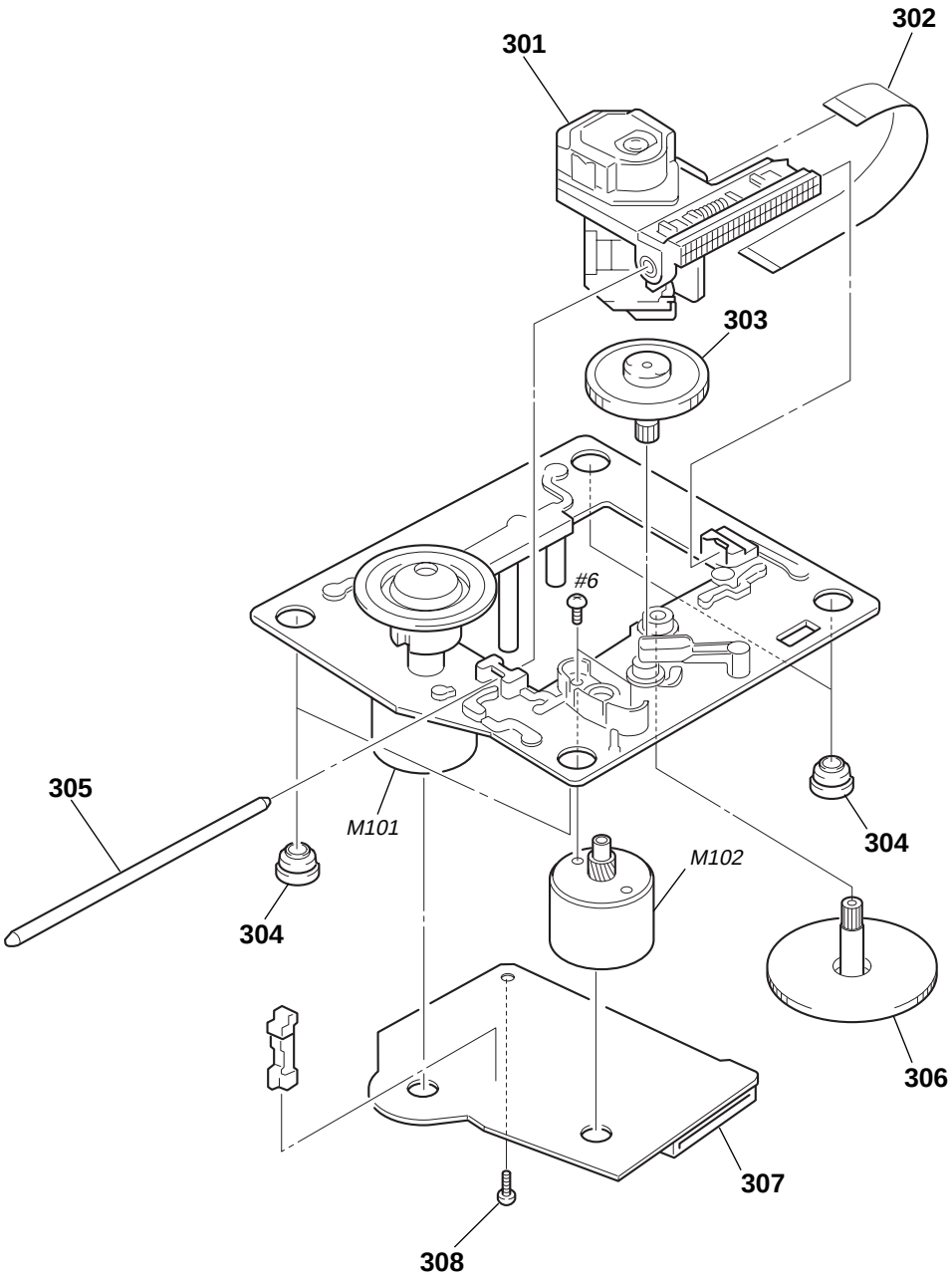
Ref. No.	Part No.	Description	Remarks
201	4-917-583-71	BRACKET, YOKE	
202	4-977-945-01	TRAY (TURN)	
203	X-4946-665-5	SHAFT ASSY, WORM	
204	4-977-943-03	BELT (TURN) (1.2)	
205	4-977-956-04	WHEEL, WORM	
* 206	1-658-577-11	MOTOR (TURN) BOARD	
207	X-4924-457-5	ROLLER ASSY	
208	4-977-941-03	BEARING (WORM)	
* 209	1-658-576-11	SENSOR BOARD	
210	4-934-376-03	SHAFT (ROLLER)	
211	4-981-187-01	COLLAR (WORM)	
212	4-977-944-01	TRAY (SLIDE)	
213	4-951-620-03	SCREW (2.6X8), +BVTP	
M701	A-4672-004-A	MOTOR ASSY (TURN)	

7-4. CD MECHANISM DECK SECTION-2 (CDM38-5BD21)



Ref. No.	Part No.	Description	Remarks
251	4-917-583-71	BRACKET, YOKE (IA,TH)	
252	4-977-954-01	PULLEY (SL)	
253	4-977-953-01	GEAR (SL-A)	
254	4-977-955-01	GEAR (SL-B)	
255	4-977-942-01	BELT (SL) (1.4)	
256	X-4946-667-0	CAM ASSY, BU	
257	1-452-925-11	MAGNET ASSY	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
* 259	1-658-575-11	CONNECTOR, BOARD	
* 260	X-4946-668-0	CHASSIS (CDM) ASSY	
261	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
* 262	1-658-578-11	MOTOR (SLIDE) BOARD	
263	4-982-447-01	SPRING (BU), COMPRESSION	
264	4-951-620-41	SCREW (2.6), +BVTP	
* 265	X-4946-666-1	HOLDER (BU) ASSY	
M801	A-4672-004-A	MOTOR ASSY (SLED)	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRADDRESS DET)	

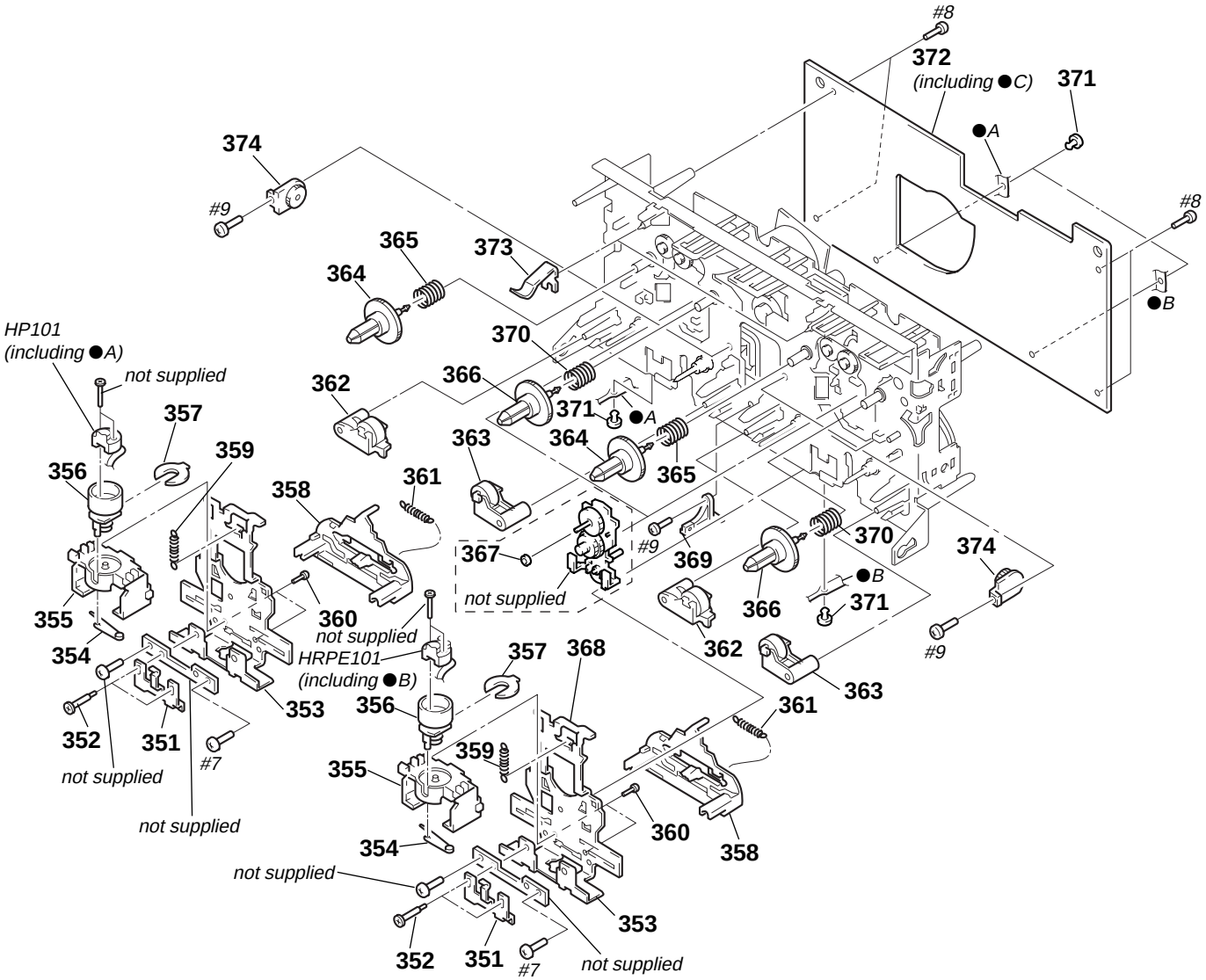
7-5. BASE UNIT SECTION (BU-5BD21)



Ref. No.	Part No.	Description	Remarks
⚠301	8-848-379-30	OPTICAL PICK-UP KSS-213B/S-N	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
303	4-917-567-01	GEAR (M)	
304	4-951-940-01	INSULATOR (BU)	
305	4-917-565-01	SHAFT, SLED	
306	4-917-564-01	GEAR (P), THREAD	
307	A-4673-557-A	BD (A) BOARD, COMPLETE	
308	4-951-620-01	SCREW (2.6X8), +BVTP	
M101	X-4917-523-11	MOTOR ASSY (SPRING)	
M102	X-4917-504-11	MOTOR ASSY (SLED)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

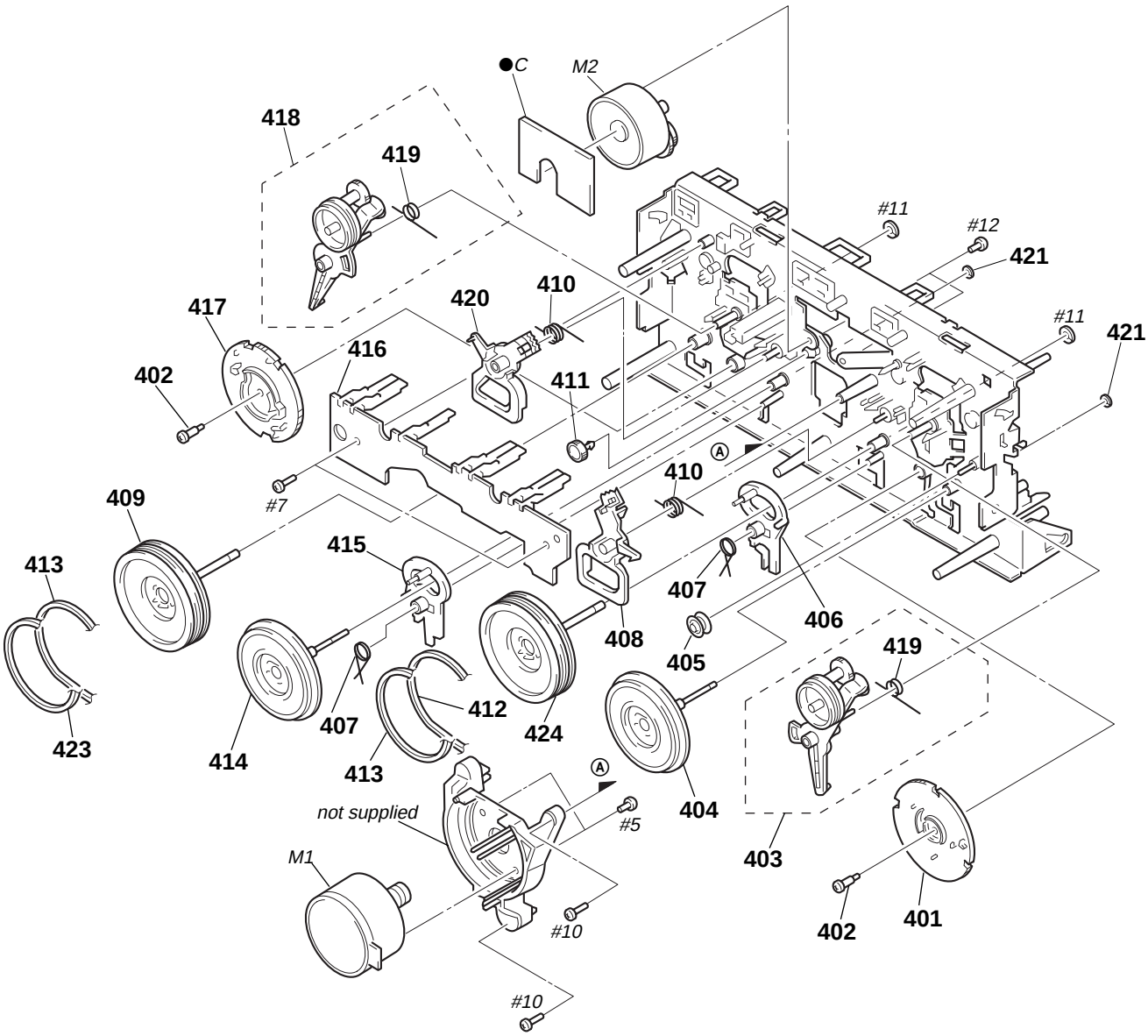
7-6. TAPE MECHANISM DECK SECTION-1 (TCM-220WR2E)



Ref. No.	Part No.	Description	Remarks
351	3-908-560-03	SPRING, AZIMUTH ADJUSTMENT	
352	3-919-684-03	SCREW, AZIMUTH ADJUSTMENT	
353	X-3373-113-3	SLIDER (HEAD) ASSY	
354	3-908-556-03	SPRING, HEAD TOGGLE	
355	3-908-558-02	FITTING BLOCK, HEAD	
356	3-908-557-02	ROTARY BLOCK, HEAD	
* 357	3-908-559-03	STOPPER, AZIMUTH	
358	3-908-555-03	SLIDER (REV SLIDER)	
359	3-917-143-15	SPRING, TENSION	
360	3-388-848-03	SCREW (P2X6) (B TIGHT)	
361	3-939-371-03	SPRING (1), TENSION	
362	X-3369-909-1	PINCH LEVER (REV) ASSY	
363	X-3369-908-1	PINCH LEVER (FWD) ASSY	
364	3-908-613-03	GEAR (S), REEL	
365	3-917-141-03	SPRING, COMPRESSION	
366	X-3371-305-1	REEL (T) ASSY	
367	3-669-465-04	WASHER (1.5), STOPPER	
368	X-3370-173-1	CAM ASSY	
* 369	4-980-439-01	FULCRUM, HOLDER	
370	3-917-142-03	SPRING, COMPRESSION	
371	3-939-862-01	CLIP	
* 372	A-2007-435-A	AUDIO BOARD, COMPLETE	
373	3-930-972-01	DETENT, HALF	
374	3-354-963-01	DAMPER	
HP101	1-500-093-11	HEAD, MAGNETIC (REC/PB/ERASE)(DECK A)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)(DECK B)	

7-7. TAPE MECHANISM DECK SECTION-2 (TCM-220WR2E)

• C: MOTOR board



Ref. No.	Part No.	Description	Remarks
401	3-908-597-01	CAM (A)	
402	3-908-608-11	SCREW, STEP	
403	X-3372-930-A1	ARM (A) ASSY, FR	
404	X-3370-169-F1	FLYWHEEL (AR) ASSY	
405	3-928-047-01	PULLEY, TENSION	
406	3-908-599-01	LEVER (REV A)	
407	3-908-601-01	SPRING (REV LEVER), TORSION	
408	3-908-603-01	LEVER (TRIGGER A)	
409	X-3367-593-F1	FLYWHEEL (BF) ASSY	
410	3-908-605-01	SPRING (TRIGGER), TORSION	
411	3-908-609-01	GEAR, TRIGGER	
412	3-913-845-11	BELT (A)	
413	3-913-846-11	BELT (FR)	
414	X-3370-171-F1	FLYWHEEL (BR) ASSY	
415	3-908-600-01	LEVER (REV B)	
* 416	1-650-669-11	LEAF SWITCH BOARD	
417	3-908-598-01	CAM (B)	
418	X-3372-931-A1	ARM (B) ASSY, FR	
419	3-911-114-01	SPRING (FR), TORSION	
420	3-908-604-01	LEVER (TRIGGER B)	
421	3-911-115-01	WASHER, STOPPER	
423	3-917-176-11	BELT (B)	
424	X-3370-172-F1	FLYWHEEL (AF) ASSY	
M1	A-2004-409-A	MOTOR ASSY, CAPSTAN	
M2	A-2004-410-A	MOTOR ASSY, DC	

AUDIO

SECTION 8
ELECTRICAL PARTS LIST

Note:

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- Abbreviation
  MY : Malaysia CH : Chinese
  SP : Singapore TH : Thai
  HK : Hong Kong IA : Indonesian
  KR : Korean
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

Ref. No.	Part No.	Description			Remarks
*	A-2007-435-A	AUDIO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-162-289-31	CERAMIC	390PF	10%	50V
C302	1-126-968-11	ELECT	100uF	20%	6.3V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-130-483-00	MYLAR	0.01uF	5%	50V
C305	1-107-715-11	ELECT	22uF	20%	16V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C313	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-130-487-00	MYLAR	0.022uF	5%	50V
C315	1-126-233-11	ELECT	22uF	20%	50V
C331	1-137-427-11	FILM	120PF	5%	50V
C332	1-162-288-31	CERAMIC	330PF	10%	50V
C333	1-162-209-31	CERAMIC	27PF	5%	50V
C401	1-162-289-31	CERAMIC	390PF	10%	50V
C402	1-126-968-11	ELECT	100uF	20%	6.3V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-130-483-00	MYLAR	0.01uF	5%	50V
C405	1-107-715-11	ELECT	22uF	20%	16V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C413	1-162-282-31	CERAMIC	100PF	10%	50V
C414	1-130-487-00	MYLAR	0.022uF	5%	50V
C415	1-126-233-11	ELECT	22uF	20%	50V
C431	1-137-427-11	FILM	120PF	5%	50V
C432	1-162-288-31	CERAMIC	330PF	10%	50V
C433	1-162-209-31	CERAMIC	27PF	5%	50V
C601	1-104-396-11	ELECT	10uF	20%	16V
C602	1-104-396-11	ELECT	10uF	20%	16V
C611	1-124-907-11	ELECT	10uF	20%	50V
C612	1-124-907-11	ELECT	10uF	20%	50V
C621	1-137-150-11	FILM	0.01uF	5%	100V
C622	1-126-961-11	ELECT	2.2uF	20%	50V
C623	1-136-155-00	FILM	0.015uF	5%	50V
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V
C627	1-124-903-11	ELECT	1uF	20%	50V
C628	1-136-153-00	FILM	0.01uF	5%	50V
C642	1-104-664-11	ELECT	47uF	20%	16V
C651	1-161-494-00	CERAMIC	0.022uF		25V
		< CONNECTOR >			
CN601	1-695-382-31	PIN, CONNECTOR (PC BOARD) 21P			
CN602	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P			
* CN651	1-564-521-11	PLUG, CONNECTOR 6P			

Ref. No.	Part No.	Description			Remarks
		< IC >			
IC601	8-759-111-42	IC	uPC4570C-1		
IC601	8-759-710-59	IC	NJM4580D-D		
IC602	8-759-143-54	IC	uPC1330HA		
IC611	8-759-111-42	IC	uPC4570C-1		
IC611	8-759-710-59	IC	NJM4580D-D		
		< COIL >			
L331	1-410-780-11	INDUCTOR	27mH		
L431	1-410-780-11	INDUCTOR	27mH		
		< TRANSISTOR >			
Q621	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q622	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q623	8-729-030-18	TRANSISTOR	2SD2525		
Q651	8-729-900-65	TRANSISTOR	AN4ES		
		< RESISTOR >			
R301	1-247-881-00	CARBON	120K	5%	1/4W
R302	1-249-409-11	CARBON	220	5%	1/4W F
R303	1-249-433-11	CARBON	22K	5%	1/4W
R304	1-247-889-00	CARBON	270K	5%	1/4W
R305	1-247-858-11	CARBON	13K	5%	1/4W
R311	1-247-881-00	CARBON	120K	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R314	1-247-882-11	CARBON	130K	5%	1/4W
R315	1-247-850-11	CARBON	6.2K	5%	1/4W
R331	1-249-430-11	CARBON	12K	5%	1/4W
R401	1-247-881-00	CARBON	120K	5%	1/4W
R402	1-249-409-11	CARBON	220	5%	1/4W F
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-247-889-00	CARBON	270K	5%	1/4W
R405	1-247-858-11	CARBON	13K	5%	1/4W
R411	1-247-881-00	CARBON	120K	5%	1/4W
R412	1-247-807-31	CARBON	100	5%	1/4W
R414	1-247-882-11	CARBON	130K	5%	1/4W
R415	1-247-850-11	CARBON	6.2K	5%	1/4W
R431	1-249-430-11	CARBON	12K	5%	1/4W
R601	1-249-409-11	CARBON	220	5%	1/4W F
R602	1-249-409-11	CARBON	220	5%	1/4W F
R608	1-249-409-11	CARBON	220	5%	1/4W F
R609	1-249-433-11	CARBON	22K	5%	1/4W
R611	1-249-409-11	CARBON	220	5%	1/4W F
R612	1-249-409-11	CARBON	220	5%	1/4W F
⚠R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
⚠R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
R623	1-249-432-11	CARBON	18K	5%	1/4W
R624	1-249-432-11	CARBON	18K	5%	1/4W

Ref. No.	Part No.	Description			Remarks
R625	1-249-429-11	CARBON	10K	5%	1/4W
R651	1-247-856-00	CARBON	11K	5%	1/4W
R652	1-247-856-00	CARBON	11K	5%	1/4W
R653	1-249-441-11	CARBON	100K	5%	1/4W
		< VARIABLE RESISTOR >			
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV341	1-238-551-11	RES, ADJ, CARBON 220K			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV441	1-238-551-11	RES, ADJ, CARBON 220K			
RV651	1-238-599-11	RES, ADJ, CARBON 4.7K			
RV652	1-238-599-11	RES, ADJ, CARBON 4.7K			
		< TRANSFORMER >			
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
**********					
*	A-4673-557-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C102	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C105	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C106	1-164-346-11	CERAMIC CHIP	1uF		16V
C107	1-164-346-11	CERAMIC CHIP	1uF		16V
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C109	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C113	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V
C117	1-126-209-11	ELECT	100uF	20%	4V
C118	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C119	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C125	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C140	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C141	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C151	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C153	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C154	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C156	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C157	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C161	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-774-115-11	CONNECTOR, (FFC/FPC) 29P			
CN102	1-770-014-11	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC101	8-752-369-78	IC	CXD2545Q		
IC102	8-759-176-01	IC	BA6392FP		
IC103	8-752-072-45	IC	CXA1821M-T6		

Ref. No.	Part No.	Description			Remarks
		< TRANSISTOR >			
Q101	8-729-010-07	TRANSISTOR	MSB710-R		
		< RESISTOR >			
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R107	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R108	1-216-073-00	METAL CHIP	10K	5%	1/10W
R109	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R110	1-216-025-91	METAL GLAZE	100	5%	1/10W
R112	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R125	1-216-033-00	METAL CHIP	220	5%	1/10W
R126	1-216-033-00	METAL CHIP	220	5%	1/10W
R127	1-216-033-00	METAL CHIP	220	5%	1/10W
R131	1-216-037-00	METAL CHIP	330	5%	1/10W
R132	1-216-073-00	METAL CHIP	10K	5%	1/10W
R134	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R135	1-216-295-91	CONDUCTOR, CHIP (2012)			
R136	1-216-295-91	CONDUCTOR, CHIP (2012)			
R137	1-216-295-91	CONDUCTOR, CHIP (2012)			
R138	1-216-295-91	CONDUCTOR, CHIP (2012)			
R141	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R142	1-216-081-00	METAL CHIP	22K	5%	1/10W
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W
R146	1-216-073-00	METAL CHIP	10K	5%	1/10W
R147	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-003-11	METAL GLAZE	12	5%	1/10W
R158	1-216-109-00	METAL CHIP	330K	5%	1/10W
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W
R160	1-216-295-91	CONDUCTOR, CHIP (2012)			
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			
**********					
*	A-4403-280-A	CD PANEL BOARD, COMPLETE			
		**********			
		< CONNECTOR >			
CNL102	1-568-860-21	SOCKET, CONNECTOR 17P			
		< DIODE >			
D211	8-719-812-40	DIODE	TLO124		
D212	8-719-812-40	DIODE	TLO124		
D213	8-719-033-06	DIODE	SEL5920A		
D214	8-719-033-06	DIODE	SEL5920A		
D215	8-719-032-86	DIODE	SEL5420E		

CD PANEL | CONNECTOR | LEAF SWITCH

Ref. No.	Part No.	Description			Remarks
D216	8-719-032-86	DIODE	SEL5420E		
D217	8-719-056-12	DIODE	SML79423C-TP15 (DISC 1)		
D218	8-719-056-12	DIODE	SML79423C-TP15 (DISC 1)		
D219	8-719-056-12	DIODE	SML79423C-TP15 (DISC 1)		
D220	8-719-056-12	DIODE	SML79423C-TP15 (DISC 2)		
D221	8-719-056-12	DIODE	SML79423C-TP15 (DISC 2)		
D222	8-719-056-12	DIODE	SML79423C-TP15 (DISC 2)		
D223	8-719-056-12	DIODE	SML79423C-TP15 (DISC 3)		
D224	8-719-056-12	DIODE	SML79423C-TP15 (DISC 3)		
D225	8-719-056-12	DIODE	SML79423C-TP15 (DISC 3)		
D226	8-719-056-12	DIODE	SML79423C-TP15 (		
D227	8-719-056-12	DIODE	SML79423C-TP15 (		
		< TRANSISTOR >			
Q205	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q206	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q207	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q208	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q209	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q210	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q211	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q212	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q213	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q214	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q215	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q216	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q217	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
Q218	8-729-027-26	TRANSISTOR	DTC114EKA-T146		
		< RESISTOR >			
R234	1-216-033-00	METAL CHIP	220	5%	1/10W
R235	1-216-033-00	METAL CHIP	220	5%	1/10W
R236	1-216-033-00	METAL CHIP	220	5%	1/10W
R237	1-216-033-00	METAL CHIP	220	5%	1/10W
R238	1-216-033-00	METAL CHIP	220	5%	1/10W
R239	1-216-033-00	METAL CHIP	220	5%	1/10W
R244	1-216-033-00	METAL CHIP	220	5%	1/10W
R245	1-216-033-00	METAL CHIP	220	5%	1/10W
R246	1-216-033-00	METAL CHIP	220	5%	1/10W
R247	1-216-033-00	METAL CHIP	220	5%	1/10W
R248	1-216-033-00	METAL CHIP	220	5%	1/10W
R249	1-216-033-00	METAL CHIP	220	5%	1/10W
R254	1-216-033-00	METAL CHIP	220	5%	1/10W
R255	1-216-033-00	METAL CHIP	220	5%	1/10W
R256	1-216-033-00	METAL CHIP	220	5%	1/10W
R257	1-216-033-00	METAL CHIP	220	5%	1/10W
R258	1-216-033-00	METAL CHIP	220	5%	1/10W
R259	1-216-033-00	METAL CHIP	220	5%	1/10W
R264	1-216-033-00	METAL CHIP	220	5%	1/10W
R265	1-216-033-00	METAL CHIP	220	5%	1/10W
R266	1-216-033-00	METAL CHIP	220	5%	1/10W
R267	1-216-033-00	METAL CHIP	220	5%	1/10W
R268	1-216-033-00	METAL CHIP	220	5%	1/10W
R269	1-216-033-00	METAL CHIP	220	5%	1/10W
R274	1-216-033-00	METAL CHIP	220	5%	1/10W
R275	1-216-033-00	METAL CHIP	220	5%	1/10W
R276	1-216-033-00	METAL CHIP	220	5%	1/10W
R277	1-216-033-00	METAL CHIP	220	5%	1/10W
R278	1-216-017-91	METAL GLAZE	47	5%	1/10W
R279	1-216-021-00	METAL CHIP	68	5%	1/10W
R280	1-216-025-91	METAL GLAZE	100	5%	1/10W
R281	1-216-029-00	METAL CHIP	150	5%	1/10W
R282	1-216-029-00	METAL CHIP	150	5%	1/10W
R283	1-216-033-00	METAL CHIP	220	5%	1/10W
R284	1-216-037-00	METAL CHIP	330	5%	1/10W
R285	1-216-041-00	METAL CHIP	470	5%	1/10W
R286	1-216-045-00	METAL CHIP	680	5%	1/10W
R287	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R288	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R289	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
		< SWITCH >			
S270	1-762-750-11	SWITCH, ACTILE ▷/II (II CD NON-STOP)			
S271	1-762-750-11	SWITCH, ACTILE ⏏ (OPEN/CLOSE)			
S272	1-762-750-11	SWITCH, ACTILE ■ ()			
S273	1-762-750-11	SWITCH, ACTILE (SELECT)			
S274	1-762-750-11	SWITCH, ACTILE (DISC 3)			
S275	1-762-750-11	SWITCH, ACTILE (DISC 2)			
S276	1-762-750-11	SWITCH, ACTILE (DISC 1)			
S277	1-762-750-11	SWITCH, ACTILE (RETURN)			
S278	1-762-750-11	SWITCH, ACTILE ▶▶)			
S279	1-762-750-11	SWITCH, ACTILE ◀◀)			
S280	1-762-750-11	SWITCH, ACTILE (DISC SKIP EX-CHANGE)			
S281	1-762-750-11	SWITCH, ACTILE (PREV)			
S282	1-762-750-11	SWITCH, ACTILE (NEXT)			
**********					
*	1-658-575-11	CONNECTOR, BOARD			
		**********			
		< CONNECTOR >			
* CN701	1-568-946-11	PIN, CONNECTOR 8P			
CN702	1-750-413-11	CONNECTOR, FFC/FPC 8P			
		< TRANSISTOR >			
Q701	8-729-900-87	TRANSISTOR	DTC114ES		
		< RESISTOR >			
R703	1-249-435-11	CARBON	33K	5%	1/4W
R704	1-249-429-11	CARBON	10K	5%	1/4W
R705	1-249-417-11	CARBON	1K	5%	1/4W F
**********					
*	1-650-669-11	LEAF SWITCH BOARD			
		**********			
		< CONNECTOR >			
* CN1001	1-568-854-11	SOCKET, CONNECTOR 11P			
CN1001	1-695-372-31	PIN, CONNECTOR (PC BOARD) 11P			
		< TRANSISTOR >			
Q1001	8-749-010-97	TRANSISTOR	PHOTO REFLECTOR NJL5165KA-H		
Q1002	8-749-010-97	TRANSISTOR	PHOTO REFLECTOR NJL5165KA-H		
		< RESISTOR >			
R1001	1-247-818-11	CARBON	300	5%	1/4W
R1002	1-247-820-11	CARBON	360	5%	1/4W
R1003	1-249-414-11	CARBON	560	5%	1/4W F
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W
R1005	1-247-818-11	CARBON	300	5%	1/4W

Ref. No.	Part No.	Description			Remarks
		< SWITCH >			
S1001	1-692-832-11	SWITCH, PUSH (1 KEY) (A PLA			
S1002	1-692-832-11	SWITCH, PUSH (1 KEY) (B PLA			
S1004	1-571-281-21	SWITCH, LEAF (A HALE)			
S1005	1-571-281-21	SWITCH, LEAF (A CrO2)			
S1006	1-572-248-11	SWITCH, LEAF (REC A)			
S1007	1-572-248-11	SWITCH, LEAF (B HALE)			
S1008	1-571-281-21	SWITCH, LEAF (B CrO2)			
S1009	1-571-281-21	SWITCH, LEAF (REC B)			
**********					
*	A-4403-279-A	MAIN BOARD, COMPLETE (SP,KR,HK,CH)			
		**********			
*	A-4403-712-A	MAIN BOARD, COMPLETE (TH)			
		**********			
*	A-4403-716-A	MAIN BOARD, COMPLETE (IA)			
		**********			
		< CAPACITOR >			
C001	1-164-159-11	CERAMIC	0.1uF	50V	
					(SP,KR,HK,CH)
C127	1-162-282-31	CERAMIC	100P	10% 50V	
C128	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C129	1-126-933-11	ELECT	100uF	20% 10V	
C130	1-162-282-31	CERAMIC	100P	10% 50V	
C131	1-164-159-11	CERAMIC	0.1uF	20% 50V	
					(SP,KR,HK,CH)
C132	1-164-159-11	CERAMIC	0.1uF	20% 50V	
					(SP,KR,HK,CH)
C133	1-164-159-11	CERAMIC	0.1uF	20% 50V	
C134	1-164-159-11	CERAMIC	0.1uF	20% 50V	
					(SP,KR,HK,CH)
C135	1-162-290-31	CERAMIC	150P	10% 50V	
					(SP,KR,HK,CH)
C136	1-162-290-31	CERAMIC	220P	10% 50V	
					(SP,KR,HK,CH)
C137	1-164-159-11	CERAMIC	0.1uF	20% 50V	
C138	1-126-933-11	ELECT	100uF	20% 10V	
C139	1-128-551-11	ELECT	22uF	20% 25V	
C140	1-164-159-11	CERAMIC	0.1uF	20% 50V	
					(SP,KR,HK,CH)
C402	1-162-600-11	CERAMIC	0.0047uF	30% 16V	
C403	1-162-290-31	CERAMIC	470PF	10% 50V	
C405	1-126-301-11	ELECT	1uF	20% 50V	
C406	1-137-399-11	FILM	0.1uF	5% 50V	
C407	1-126-964-11	ELECT	10uF	20% 50V	
C409	1-126-964-11	ELECT	10uF	20% 50V	
C411	1-126-301-11	ELECT	1uF	20% 50V	
C421	1-126-964-11	ELECT	10uF	20% 50V	
C422	1-126-964-11	ELECT	10uF	20% 50V	
C423	1-126-933-11	ELECT	100uF	20% 10V	
C424	1-164-159-11	CERAMIC	0.1uF	20% 50V	
					(SP,KR,HK,CH)
C425	1-164-159-11	CERAMIC	0.1uF	20% 50V	
					(SP,KR,HK,CH)
C426	1-164-159-11	CERAMIC	0.1uF	20% 50V	
					(SP,KR,HK,CH)
C427	1-126-935-11	ELECT	470uF	20% 16V	
C428	1-126-933-11	ELECT	100uF	20% 16V	
C429	1-126-933-11	ELECT	100uF	20% 10V	
C452	1-162-600-11	CERAMIC	0.0047uF	30% 16V	
C453	1-162-290-31	CERAMIC	470PF	10% 50V	
C455	1-126-301-11	ELECT	1uF	20% 50V	
C456	1-137-399-11	FILM	0.1uF	5% 50V	
C457	1-126-964-11	ELECT	10uF	20% 50V	
C459	1-126-964-11	ELECT	10uF	20% 50V	
C461	1-126-301-11	ELECT	1uF	20% 50V	
C702	1-126-961-11	ELECT	2.2uF	20% 50V	
C752	1-126-961-11	ELECT	2.2uF	20% 50V	
C813	1-126-967-11	ELECT	47uF	20% 10V	
C853	1-126-944-11	ELECT	3300uF	20% 25V	
C854	1-126-944-11	ELECT	3300uF	20% 25V	
C861	1-126-768-11	ELECT	2200uF	20% 16V	
C862	1-126-933-11	ELECT	100uF	20% 10V	
C863	1-126-967-11	ELECT	47uF	20% 10V	
C867	1-126-967-11	ELECT	47uF	20% 10V	
C868	1-126-923-11	ELECT	220uF	20% 10V	
C869	1-126-967-11	ELECT	47uF	20% 10V	
C870	1-164-159-11	CERAMIC	0.1uF	20% 50V	
					(SP,KR,HK,CH)
C871	1-164-159-11	CERAMIC	0.1uF	20% 50V	
					(SP,KR,HK,CH)
C872	1-126-929-11	ELECT	4700uF	20% 6.3V	
C873	1-126-933-11	ELECT	100uF	20% 10V	
C876	1-126-933-11	ELECT	100uF	20% 10V	
		< CONNECTOR >			
* CN111	1-568-935-11	PIN, CONNECTOR 8P			
* CN112	1-568-936-11	PIN, CONNECTOR 9P			
* CNB108	1-764-017-31	HOUSING,CONNECTOR(PC BOARD)17P			
					(SYSTEM CONTR
		< JACK >			
CNJ106	1-770-721-11	CONNECTOR, BOARD TO BOARD 4P			
		< CONNECTOR >			
CNP105	1-770-393-11	PIN, CONNECTOR (PC BOARD) 9P			
CNS101	1-569-060-11	SOCKET, CONNECTOR 11P			
CNS102	1-568-440-11	SOCKET, CONNECTOR 17P			
CNS103	1-568-443-11	SOCKET, CONNECTOR 13P			
CNS104	1-569-324-11	SOCKET, CONNECTOR 21P			
		< DIODE >			
D110	8-719-987-63	DIODE	1N4148M		
D855	8-719-110-08	DIODE	RD8.2ES-B2		(SP,KR,HK,CH)
D858	8-719-110-08	DIODE	RD8.2ES-B2		(SP,KR,HK,CH)
D901	8-719-024-99	DIODE	11ES2-2B		T(M,SP,KR,HK,CH)
D902	8-719-024-99	DIODE	11ES2-2B		T(M,SP,KR,HK,CH)
D903	8-719-024-99	DIODE	11ES2-2B		T(M,SP,KR,HK,CH)
D904	8-719-024-99	DIODE	11ES2-2B		T(M,SP,KR,HK,CH)
		< TERMINAL >			
* EH01	1-537-738-21	TERMINAL, EAR			
		< IC >			
IC101	8-759-482-60	IC	uPD780016YGF-016-3BA		
IC103	8-759-165-82	IC	PST600E-T		
IC107	8-749-921-12	IC	GP1F32T (OPTICAL DIGITAL)		
IC401	8-759-363-27	IC	HA12203NT		
IC402	8-759-822-09	IC	LB1641		

MAIN MOTOR (SLIDE)

Ref. No.	Part No.	Description			Remarks
		< JACK >			
J401	1-410-482-31	INDUCTOR	100uH		
		< TRANSISTOR >			
Q102	8-729-040-20	TRANSISTOR	T1R137L		
Q103	8-729-900-80	TRANSISTOR	DTC114ES		
Q104	8-729-040-20	TRANSISTOR	T1R137L		
Q105	8-729-040-20	TRANSISTOR	T1R137L		
Q106	8-729-029-66	TRANSISTOR	BA1A4M		
Q405	8-729-801-93	TRANSISTOR	2SD1387		
Q408	8-729-900-80	TRANSISTOR	BA1A4M		
Q409	8-729-900-80	TRANSISTOR	BA1A4M		
Q410	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q411	8-729-900-80	TRANSISTOR	BA1A4M		
Q852	8-729-018-60	TRANSISTOR	2SD2012-LC		
Q855	8-729-018-59	TRANSISTOR	2SB1375-LC		
		< RESISTOR >			
R130	1-247-807-31	CARBON	100	5%	1/4W
R131	1-247-807-31	CARBON	100	5%	1/4W
R132	1-247-807-31	CARBON	100	5%	1/4W
R133	1-247-807-31	CARBON	100	5%	1/4W
R134	1-247-807-31	CARBON	100	5%	1/4W
R135	1-247-807-31	CARBON	100	5%	1/4W
R136	1-247-807-31	CARBON	100	5%	1/4W
R139	1-249-429-11	CARBON	10K	5%	1/4W
R140	1-249-429-11	CARBON	10K	5%	1/4W
R141	1-249-429-11	CARBON	10K	5%	1/4W
R142	1-249-429-11	CARBON	10K	5%	1/4W
R143	1-247-807-31	CARBON	100	5%	1/4W
R146	1-249-417-11	CARBON	1K	5%	1/4W F
R147	1-249-429-11	CARBON	10K	5%	1/4W
R148	1-249-429-11	CARBON	10K	5%	1/4W
R149	1-247-807-31	CARBON	100	5%	1/4W
R150	1-247-807-31	CARBON	100	5%	1/4W
R151	1-247-807-31	CARBON	100	5%	1/4W
R152	1-247-807-31	CARBON	100	5%	1/4W
R153	1-249-419-11	CARBON	1.5K	5%	1/4W F
R154	1-249-419-11	CARBON	1.5K	5%	1/4W F
R155	1-249-427-11	CARBON	6.8K	5%	1/4W F
R156	1-249-427-11	CARBON	6.8K	5%	1/4W F
R157	1-249-429-11	CARBON	10K	5%	1/4W
R158	1-249-429-11	CARBON	10K	5%	1/4W
R161	1-247-807-31	CARBON	100	5%	1/4W
R162	1-247-807-31	CARBON	100	5%	1/4W
R403	1-249-426-11	CARBON	5.6K	5%	1/4W
R404	1-249-417-11	CARBON	1K	5%	1/4W F
R405	1-247-840-00	CARBON	2.4K	5%	1/4W
R406	1-249-421-11	CARBON	2.2K	5%	1/4W F
R407	1-249-428-11	CARBON	8.2K	5%	1/4W F
R409	1-249-433-11	CARBON	22K	5%	1/4W ,SPKR(MMK,CH)
R419	1-249-435-11	CARBON	33K	5%	1/4W
R422	1-249-441-11	CARBON	100K	5%	1/4W
R423	1-249-432-11	CARBON	18K	5%	1/4W
R424	1-249-429-11	CARBON	10K	5%	1/4W
R425	1-249-429-11	CARBON	10K	5%	1/4W
R426	1-249-429-11	CARBON	10K	5%	1/4W
R429	1-249-426-11	CARBON	5.6K	5%	1/4W
R433	1-249-425-11	CARBON	4.7K	5%	1/4W F
R434	1-249-425-11	CARBON	4.7K	5%	1/4W F
R435	1-249-425-11	CARBON	4.7K	5%	1/4W F
R436	1-249-417-11	CARBON	1K	5%	1/4W F
R437	1-249-436-11	CARBON	39K	5%	1/4W
R438	1-249-436-11	CARBON	39K	5%	1/4W
R439	1-249-437-11	CARBON	47K	5%	1/4W
R440	1-249-437-11	CARBON	47K	5%	1/4W
R442	1-247-843-11	CARBON	3.3K	5%	1/4W
R447	1-249-411-11	CARBON	330	5%	1/4W
R448	1-249-427-11	CARBON	6.8K	5%	1/4W F
R449	1-249-429-11	CARBON	10K	5%	1/4W
R450	1-249-425-11	CARBON	4.7K	5%	1/4W F
R453	1-249-426-11	CARBON	5.6K	5%	1/4W
R454	1-249-417-11	CARBON	1K	5%	1/4W F
R455	1-247-840-00	CARBON	2.4K	5%	1/4W
R456	1-249-421-11	CARBON	2.2K	5%	1/4W F
R457	1-249-428-11	CARBON	8.2K	5%	1/4W F
R459	1-249-433-11	CARBON	22K	5%	1/4W ,SPKR(MMK,CH)
R469	1-249-433-11	CARBON	22K	5%	1/4W ,SPKR(MMK,CH)
R470	1-249-425-11	CARBON	4.7K	5%	1/4W F
R480	1-249-430-11	CARBON	12K	5%	1/4W
R704	1-249-417-11	CARBON	1K	5%	1/4W F
R705	1-249-438-11	CARBON	56K	5%	1/4W
R706	1-249-417-11	CARBON	1K	5%	1/4W F
R754	1-249-417-11	CARBON	1K	5%	1/4W F
R755	1-249-438-11	CARBON	56K	5%	1/4W
R756	1-249-417-11	CARBON	1K	5%	1/4W F
R855	1-249-417-11	CARBON	1K	5%	1/4W F
R859	1-249-417-11	CARBON	1K	5%	1/4W F
⚠R861	1-212-853-00	FUSIBLE	6.8	5%	1/4W F
⚠R862	1-212-853-00	FUSIBLE	6.8	5%	1/4W F
		< VARIABLE RESISTOR >			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV451	1-238-598-11	RES, ADJ, CARBON 2.2K			
		< VIBRATOR >			
X101	1-760-489-11	VIBRATOR, CERAMIC (5MHz)			
**********					
*	1-658-578-11	MOTOR (SLIDE) BOARD			
		**********			
		< CAPACITOR >			
C801	1-162-306-11	CERAMIC	0.01uF	20%	16V
C804	1-162-306-11	CERAMIC	0.01uF	20%	16V
C805	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN801	1-568-947-11	PIN, CONNECTOR 9P			
		< DIODE >			
D801	8-719-010-40	DIODE	UZ-5.6BSC		
D804	8-719-987-63	DIODE	1N4148M		
D805	8-719-987-63	DIODE	1N4148M		

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remarks
		< IC >			
IC801	8-759-274-01	IC BA6286N			
		< RESISTOR >			
R801	1-249-401-11	CARBON	47	5% 1/4W F	
		< SWITCH >			
S801	1-762-527-15	SWITCH, ROTARY (OPEN/CLOSE)			
**********					
*	1-658-577-11	MOTOR (TURN) BOARD			
		******************			
		< CAPACITOR >			
C701	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C702	1-126-964-11	ELECT	10uF	20% 50V	
C705	1-162-306-11	CERAMIC	0.01uF	20% 16V	
		< CONNECTOR >			
CN703	1-750-413-11	CONNECTOR, FFC/FPC 8P			
CN704	1-506-469-11	PIN, CONNECTOR 4P			
		< DIODE >			
D701	8-719-010-20	DIODE UZ-3.6BSB			
		< IC >			
IC701	8-759-633-65	IC M54641L			
		< RESISTOR >			
R706	1-249-411-11	CARBON	330	5% 1/4W	
R707	1-249-401-11	CARBON	47	5% 1/4W F	
**********					
*	1-666-004-11	RESISTOR BOARD			
		***************			
		< CAPACITOR >			
C850			0.1uF		
C851	1-164-159-11	CERAMIC	0.1uF	50V ,SPKR(MYK,CH)	
C852	1-164-159-11	CERAMIC	0.1uF	50V ,SPKR(MYK,CH)	
C865	1-126-967-11	ELECT	47uF	20% 10V	
C866			2200	25V	
		< DIODE >			
D851	8-719-987-62	DIODE 1N4148M			
D852	8-719-987-62	DIODE 1N4148M			
		< IC >			
IC851	8-759-231-58	IC A7812S			
IC852	8-759-231-59	IC A7805S			
IC853	8-759-604-86	IC M5F7807L			
		< RESISTOR >			
R864	1-216-377-11	METAL OXIDE	4.7	5% 2W	F
R865	1-216-377-11	METAL OXIDE	4.7	5% 2W	F
R866	1-216-377-11	METAL OXIDE	4.7	5% 2W	F
R867	1-216-377-11	METAL OXIDE	4.7	5% 2W	F
**********					

Ref. No.	Part No.	Description			Remarks
*	1-658-576-11	SENSOR BOARD			
		************			
		< IC >			
IC702	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391			
IC703	8-749-924-30	IC PHOTO REFLECTOR GP2S28			
		< RESISTOR >			
R701	1-249-416-11	CARBON	820	5% 1/4W F	
R702	1-249-407-11	CARBON	150	5% 1/4W F	
**********					
*	1-666-007-11	TC (A) BOARD			
		***********			
		< DIODE >			
D207	8-719-058-03	DIODE SEL5423E-TP15 (			
D208	8-719-058-03	DIODE SEL5423E-TP15 (			
D209	8-719-058-03	DIODE SEL5423E-TP15 (			
D210	8-719-058-03	DIODE SEL5423E-TP15 (			
		< TRANSISTOR >			
Q203	8-729-027-27	TRANSISTOR ADT14EKA-T146			
Q204	8-729-027-27	TRANSISTOR ADT14EKA-T146			
		< RESISTOR >			
R213	1-216-061-00	METAL CHIP	3.3K	5% 1/10W	
R214	1-216-069-00	METAL CHIP	6.8K	5% 1/10W	
R215	1-216-077-00	METAL CHIP	15K	5% 1/10W	
R230	1-216-033-00	METAL CHIP	220	5% 1/10W	
R231	1-216-033-00	METAL CHIP	220	5% 1/10W	
R232	1-216-033-00	METAL CHIP	220	5% 1/10W	
R233	1-216-033-00	METAL CHIP	220	5% 1/10W	
		< SWITCH >			
S264	1-762-750-15	SWITCH, ACTILE□()			
S265	1-762-750-15	SWITCH, ACTILE◁(L)			
S266	1-762-750-15	SWITCH, ACTILE▷(R)			
**********					
*	1-666-008-11	TC (B) BOARD			
		***********			
		< JACK >			
CNJ105	1-770-402-11	HOUSING, CONNECTOR(PC BOARD)9P			
		< DIODE >			
D201	8-719-058-03	DIODE SEL5423E-TP15 (			
D202	8-719-058-03	DIODE SEL5423E-TP15 (			
D203	8-719-058-03	DIODE SEL5423E-TP15 (			
D204	8-719-058-03	DIODE SEL5423E-TP15 (			
		< TRANSISTOR >			
Q201	8-729-027-27	TRANSISTOR ADT14EKA-T146			
Q202	8-729-027-27	TRANSISTOR ADT14EKA-T146			
		< RESISTOR >			
F R201	1-216-017-91	METAL GLAZE	47	5% 1/10W	
F R202	1-216-021-00	METAL CHIP	68	5% 1/10W	
F R224	1-216-033-00	METAL CHIP	220	5% 1/10W	
R225	1-216-033-00	METAL CHIP	220	5% 1/10W	
R226	1-216-033-00	METAL CHIP	220	5% 1/10W	

TC (B) TC PANEL VIDEO

Ref. No.	Part No.	Description			Remarks
R227	1-216-033-00	METAL CHIP	220	5%	1/10W
		< SWITCH >			
S251	1-762-750-15	SWITCH, ACTILE (▷)			
S252	1-762-750-15	SWITCH, ACTILE (◁)			
S253	1-762-750-15	SWITCH, ACTILE (□)			
**********					
*	A-4398-496-A	TC PANEL BOARD, COMPLETE			
		**********			
		< DIODE >			
D205	8-719-033-06	DIODE SEL5920AUS (▮▮)			
D206	8-719-812-40	DIODE TLO124 (REC)			
		< TRANSISTOR >			
Q219	8-729-027-27	TRANSISTOR ADI4EKA-T146			
Q220	8-729-027-27	TRANSISTOR ADI4EKA-T146			
		< RESISTOR >			
R203	1-216-025-91	METAL GLAZE	100	5%	1/10W
R204	1-216-029-00	METAL CHIP	150	5%	1/10W
R205	1-216-029-00	METAL CHIP	150	5%	1/10W
R206	1-216-033-00	METAL CHIP	220	5%	1/10W
R207	1-216-037-00	METAL CHIP	330	5%	1/10W
R208	1-216-041-00	METAL CHIP	470	5%	1/10W
R209	1-216-045-00	METAL CHIP	680	5%	1/10W
R210	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R211	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R212	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R228	1-216-033-00	METAL CHIP	220	5%	1/10W
R229	1-216-033-00	METAL CHIP	220	5%	1/10W
		< SWITCH >			
S254	1-762-750-15	SWITCH, ACTILE (▶▶)			
S255	1-762-750-15	SWITCH, ACTILE (◀◀)			
S256	1-762-750-15	SWITCH, ACTILE (DIRECTION MODE)			
S257	1-762-750-15	SWITCH, ACTILE (PAUSE ▮▮)			
S258	1-762-750-15	SWITCH, ACTILE (REC)			
S259	1-762-750-15	SWITCH, ACTILE (HI-SPEED DUBBING)			
S260	1-762-750-15	SWITCH, ACTILE (CD SYNCHRO)			
S261	1-762-750-15	SWITCH, ACTILE (DOLBY NR)			
S262	1-762-750-15	SWITCH, ACTILE (▶▶)			
S263	1-762-750-15	SWITCH, ACTILE (◀◀)			
**********					
*	A-4398-587-A	VIDEO BOARD, COMPLETE (IA,TH)			
		**********			
*	A-4398-576-A	VIDEO BOARD, COMPLETE, (PK			KR,HK,CH)
		**********			
		< CAPACITOR >			
C001	1-164-159-21	CERAMIC	0.1uF		50V
C101	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C102	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C103	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C104	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C105	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C106	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C107	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C108	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C109	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C122	1-163-091-00	CERAMIC CHIP	8PF		50V
C123	1-163-091-00	CERAMIC CHIP	8PF		50V
C124	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C125	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C127	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C128	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C129	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C131	1-164-159-21	CERAMIC	0.1uF		50V (IA,TH)
C132	1-164-159-21	CERAMIC	0.1uF		50V (IA,TH)
C134	1-164-159-21	CERAMIC	0.1uF		50V (IA,TH)
C135	1-162-284-31	CERAMIC	150PF	10%	50V (IA,TH)
C136	1-162-286-21	CERAMIC	220PF	10%	50V (IA,TH)
C140	1-164-159-21	CERAMIC	0.1uF		50V (IA,TH)
C151	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C152	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C153	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C154	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C155	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C156	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C157	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C158	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C159	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C181	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C201	1-126-607-11	ELECT CHIP	47uF	20%	4V
C202	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C203	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C204	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C205	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C206	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C207	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C208	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C209	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C210	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C211	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C212	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C213	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C251	1-124-779-00	ELECT CHIP	10uF	20%	16V
C252	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C271	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C272	1-124-779-00	ELECT CHIP	10uF	20%	16V
C273 (IA,TH)	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C274	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C275	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C276	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C301	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C302	1-124-779-00	ELECT CHIP	10uF	20%	16V
C303	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C304	1-163-038-91	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remarks
C305	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C306	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C401	1-124-779-00	ELECT CHIP	10uF	20%	16V
C402	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C403	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C404	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C405	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C406	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C407	1-124-779-00	ELECT CHIP	10uF	20%	16V
C408	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C409	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C424	1-164-159-21	CERAMIC	0.1uF		50V
C425	1-164-159-21	CERAMIC	0.1uF		50V
C426	1-164-159-21	CERAMIC	0.1uF		50V
C451	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C452	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C453	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C454	1-124-779-00	ELECT CHIP	10uF	20%	16V
C461	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C462	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C463	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C464	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C465	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C466	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C468	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C469	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C470	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C501	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C502	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C503	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C504	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C505	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C506	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C608	1-164-159-21	CERAMIC	0.1uF		50V
C609	1-164-159-21	CERAMIC	0.1uF		50V
C610	1-164-159-21	CERAMIC	0.1uF		50V
C701	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C702	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C703	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C704	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C705	1-124-779-00	ELECT CHIP	10uF	20%	16V
C706	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C751	1-124-779-00	ELECT CHIP	10uF	20%	16V
C752	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C771	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C772	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C801	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C802	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C803	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C804	1-126-209-11	ELECT	100uF	20%	4V
C805	1-126-204-11	ELECT CHIP	47uF	20%	16V
C806	1-126-204-11	ELECT CHIP	47uF	20%	16V
					,SP,KR(MK,IA,CH)
C806	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C807	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C851	1-164-159-21	CERAMIC	0.1uF		50V
C852	1-164-159-21	CERAMIC	0.1uF		50V
					(IA,
C870	1-164-159-21	CERAMIC	0.1uF		50V
					(IA,
C871	1-164-159-21	CERAMIC	0.1uF		50V
					(IA,
C901	1-124-779-00	ELECT CHIP	10uF	20%	16V
C902	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C903	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C904	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C908	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-779-416-11	CONNECTOR,FFC(LIF(NON-ZIF))13P			(IA,TH)
CN102	1-766-942-11	CONNECTOR, FFC/FPC 29P			(IA,TH)
CN103	1-774-863-11	PIN, CONNECTOR (PC BOARD) 8P			
CN104	1-774-731-21	PIN, CONNECTOR (PC BOARD) 5P			(IA,TH)
		< TRIMMER >			
CT401	1-141-539-11	CAP, ADJ 10PF			
		< DIODE >			
D701	8-719-018-50	DIODE	CL-170R-CD		
D855	8-719-010-58	DIODE	UZ-8.2BSB (IA,TH)		
D858	8-719-010-58	DIODE	UZ-8.2BSB (IA,TH)		
D901	8-719-200-82	DIODE	11ES2 (IA,TH)		
D902	8-719-200-82	DIODE	11ES2 (IA,TH)		
D903	8-719-200-82	DIODE	11ES2 (IA,TH)		
D904	8-719-200-82	DIODE	11ES2 (IA,TH)		
		< GROUND >			
* EPT884	4-870-539-00	PLATE, GROUND			
		< FERRITE BEAD >			
FB101	1-500-445-21	INDUCTOR	0UH		
FB102	1-543-961-11	BEAD, FERRITE (CHIP)			
FB103	1-543-961-11	BEAD, FERRITE (CHIP)			(IA,TH)
FB104	1-543-961-11	BEAD, FERRITE (CHIP)			
FB105	1-543-961-11	BEAD, FERRITE (CHIP)			(IA,TH)
FB106	1-216-295-91	CONDUCTOR, CHIP (2012)			
FB451	1-543-961-11	BEAD, FERRITE (CHIP)			(IA,TH)
FB452	1-543-961-11	BEAD, FERRITE (CHIP)			
FB453	1-543-961-11	BEAD, FERRITE (CHIP)			
FB454	1-216-295-91	CONDUCTOR, CHIP (2012)			
FB455	1-216-295-91	CONDUCTOR, CHIP (2012)			
FB456	1-543-961-11	BEAD, FERRITE (CHIP)(EXCEPT TH)			
FB457	1-216-295-91	CONDUCTOR, CHIP (2012)(EXCEPT TH)			
FB801	1-500-184-11	BEAD, FERRITE			
FB802	1-500-184-11	BEAD, FERRITE			
		< IC >			
IC101	8-759-362-47	IC	CXD8567AM		
IC102	8-759-701-39	IC	NJM3404AM		
IC103	8-759-701-39	IC	NJM3404AM		
IC181	8-759-269-14	IC	SN74HCT08ANS-E20		
IC201	8-752-389-31	IC	CXD1852AQ		
IC251	8-759-368-97	IC	M5M44260CTP-7S		
IC271	8-759-464-23	IC	BU6257AFV		
IC271	8-759-479-44	IC	BU6257AFV-E2		
IC272	8-759-180-84	IC	TC7W74F		
IC301	8-752-384-09	IC	CXD1854Q		
					(IA,TH)

VIDEO

Ref. No.	Part No.	Description	Remarks
IC401	8-752-380-71	IC CXD1913Q	
IC402	8-759-269-92	IC SN74HCU04ANS-E20	
IC451	8-759-262-01	IC MC14576CF	
IC452	8-759-262-01	IC MC14576CF	
IC501	8-759-926-49	IC SN74HC245ANS	
IC701	8-759-468-15	IC HD6433032SK12F	
IC701	8-759-484-85	IC HD6433032SK15F	
IC751	8-759-462-71	IC HY6264ALJ-70-TR	
IC771	8-759-927-72	IC TL1591CP	
IC772	8-759-035-93	IC SC7S32F	
IC801	8-759-460-72	IC BA033FP	
IC901	8-759-467-59	IC uPD780016YGF-012-3BA	
IC901	8-759-484-86	IC uPD780016YGF-017-3BA	
		< COIL >	
L101	1-410-377-31	INDUCTOR CHIP 4.7uH	
L251	1-410-377-31	INDUCTOR CHIP 4.7uH	
		< TRANSISTOR >	
Q103	8-729-029-66	TRANSISTOR DTC114ESA (IA,TH)	
Q408	8-729-029-66	TRANSISTOR DTC114ESA (IA,TH)	
Q409	8-729-029-66	TRANSISTOR DTC114ESA (IA,TH)	
Q411	8-729-029-66	TRANSISTOR DTC114ESA (IA,TH)	
Q701	8-729-421-22	TRANSISTOR UN2211 (TH)	
Q701	8-729-900-53	TRANSISTOR DTC114EK (EXCEPT TH)	
		< RESISTOR >	
R101	1-216-691-11	METAL CHIP 47K 0.5% 1/10W	
R102	1-216-691-11	METAL CHIP 47K 0.5% 1/10W	
R103	1-216-679-11	METAL CHIP 15K 0.5% 1/10W	
R104	1-216-675-11	METAL CHIP 10K 0.5% 1/10W	
R105	1-216-675-11	METAL CHIP 10K 0.5% 1/10W	
R106	1-216-693-11	METAL CHIP 56K 0.5% 1/10W	
R107	1-216-693-11	METAL CHIP 56K 0.5% 1/10W	
R108	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R109	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R110	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R111	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R121	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R122	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R123	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R124	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R125	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R126	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R127	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R128	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R129	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R130	1-216-041-00	METAL CHIP 470 5% 1/10W	
R151	1-216-691-11	METAL CHIP 47K 0.5% 1/10W	
R152	1-216-691-11	METAL CHIP 47K 0.5% 1/10W	
R153	1-216-679-11	METAL CHIP 15K 0.5% 1/10W	
R154	1-216-675-11	METAL CHIP 10K 0.5% 1/10W	
R155	1-216-675-11	METAL CHIP 10K 0.5% 1/10W	
R156	1-216-693-11	METAL CHIP 56K 0.5% 1/10W	
R157	1-216-693-11	METAL CHIP 56K 0.5% 1/10W	
R158	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R159	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R160	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R161	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R201	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R203	1-216-295-91	CONDUCTOR, CHIP (2012)	
R204	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R206	1-216-295-91	CONDUCTOR, CHIP (2012)	
R207	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R208	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R209	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R210	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R211	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R212	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R213	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R214	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R215	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R216	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R217	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R218	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R219	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R220	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R221	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R222	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R223	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R224	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R225	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R226	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R227	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R228	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R229	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R230	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R231	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R232	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R233	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R234	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R235	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R236	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R237	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R238	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R239	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R240	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R241	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R242	1-216-073-00	METAL CHIP 10K 5% 1/10W (TH)	
R243	1-216-295-91	CONDUCTOR, CHIP (2012)	
R271	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R272	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R273	1-216-041-00	METAL CHIP 470 5% 1/10W	
R274	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R302	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R303	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R304	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R305	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R306	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R307	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R308	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R309	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R310	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R311	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R312	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R313	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R401	1-216-047-91	METAL GLAZE 820 5% 1/10W	

Ref. No.	Part No.	Description			Remarks
R402	1-216-025-91	METAL GLAZE	100	5%	1/10W
R403	1-216-025-91	METAL GLAZE	100	5%	1/10W
R404	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R405	1-216-047-91	METAL GLAZE	820	5%	1/10W
R406	1-216-025-91	METAL GLAZE	100	5%	1/10W
R407	1-216-025-91	METAL GLAZE	100	5%	1/10W
R409	1-247-863-91	CARBON	22K	5%	1/4W
R451	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R452	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R453	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R454	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R455	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R456	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R457	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R458	1-216-295-91	CONDUCTOR, CHIP (2012) (TH)			
R459	1-216-295-91	CONDUCTOR, CHIP (2012) (TH)			
R459	1-247-863-91	CARBON	22K	5%	1/4W
R460	1-216-295-91	CONDUCTOR, CHIP (2012) (TH)			
R461	1-216-295-91	CONDUCTOR, CHIP (2012) (TH)			
R462	1-216-295-91	CONDUCTOR, CHIP (2012) (TH)			
R463	1-216-295-91	CONDUCTOR, CHIP (2012) (TH)			
R464	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R465	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R466	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R467	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R468	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R469	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R469	1-247-863-91	CARBON	22K	5%	1/4W
R470	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R471	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R501	1-216-025-91	METAL GLAZE	100	5%	1/10W
R502	1-216-025-91	METAL GLAZE	100	5%	1/10W
R503	1-216-025-91	METAL GLAZE	100	5%	1/10W
R504	1-216-025-91	METAL GLAZE	100	5%	1/10W
R505	1-216-025-91	METAL GLAZE	100	5%	1/10W
R506	1-216-037-00	METAL CHIP	330	5%	1/10W
R507	1-216-037-00	METAL CHIP	330	5%	1/10W
R508	1-216-037-00	METAL CHIP	330	5%	1/10W
R509	1-216-037-00	METAL CHIP	330	5%	1/10W
R510	1-216-047-91	METAL GLAZE	820	5%	1/10W
R511	1-216-043-91	METAL GLAZE	560	5%	1/10W
R701	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R702	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R704	1-216-073-00	METAL CHIP	10K	5%	1/10W
R705	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R706	1-216-073-00	METAL CHIP	10K	5%	1/10W
R707	1-216-073-00	METAL CHIP	10K	5%	1/10W
R708	1-216-073-00	METAL CHIP	10K	5%	1/10W
R709	1-216-073-00	METAL CHIP	10K	5%	1/10W
R711	1-216-295-91	CONDUCTOR, CHIP (2012)			
R712	1-216-025-91	METAL GLAZE	100	5%	1/10W
R713	1-216-025-91	METAL GLAZE	100	5%	1/10W
R714	1-216-025-91	METAL GLAZE	100	5%	1/10W
R715	1-216-025-91	METAL GLAZE	100	5%	1/10W
R716	1-216-025-91	METAL GLAZE	100	5%	1/10W
R717	1-216-025-91	METAL GLAZE	100	5%	1/10W
R718	1-216-025-91	METAL GLAZE	100	5%	1/10W
R719	1-216-025-91	METAL GLAZE	100	5%	1/10W
R720	1-216-025-91	METAL GLAZE	100	5%	1/10W
R721	1-216-025-91	METAL GLAZE	100	5%	1/10W
R722	1-216-081-00	METAL CHIP	22K	5%	1/10W
R723	1-216-025-91	METAL GLAZE	100	5%	1/10W
(IR,ZH) R724	1-216-073-00	METAL CHIP	10K	5%	1/10W
R725	1-216-073-00	METAL CHIP	10K	5%	1/10W
R726	1-216-073-00	METAL CHIP	10K	5%	1/10W
R727	1-216-073-00	METAL CHIP	10K	5%	1/10W
R728	1-216-073-00	METAL CHIP	10K	5%	1/10W
R884	1-163-038-91	CERAMIC CHIP	0.1MF		25V (TH)
R884	1-216-295-91	CONDUCTOR, CHIP (2012)			(EXCEPT TH)
R902	1-216-295-91	CONDUCTOR, CHIP (2012)			
R903	1-216-025-91	METAL GLAZE	100	5%	1/10W
R904	1-216-073-00	METAL CHIP	10K	5%	1/10W
(IR,TH) R905	1-216-073-00	METAL CHIP	10K	5%	1/10W
R906	1-216-073-00	METAL CHIP	10K	5%	1/10W
R907	1-216-085-00	METAL CHIP	33K	5%	1/10W
R908	1-216-085-00	METAL CHIP	33K	5%	1/10W
R909	1-216-085-00	METAL CHIP	33K	5%	1/10W
R910	1-216-085-00	METAL CHIP	33K	5%	1/10W
R911	1-216-073-00	METAL CHIP	10K	5%	1/10W
R912	1-216-073-00	METAL CHIP	10K	5%	1/10W
R913	1-216-073-00	METAL CHIP	10K	5%	1/10W
R914	1-216-073-00	METAL CHIP	10K	5%	1/10W
R915	1-216-073-00	METAL CHIP	10K	5%	1/10W
R916	1-216-073-00	METAL CHIP	10K	5%	1/10W
(IR,TH) R917	1-216-073-00	METAL CHIP	10K	5%	1/10W
R919	1-216-073-00	METAL CHIP	10K	5%	1/10W
R920	1-216-073-00	METAL CHIP	10K	5%	1/10W
R921	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< VIBRATOR >			
X101	1-767-518-11	VIBRATOR, CRYSTAL (33MHz)			
X201	1-767-055-11	VIBRATOR, CERAMIC (45MHz)			
X202	1-767-361-11	VIBRATOR, CERAMIC (28.63636MHz)			
X401	1-767-519-11	VIBRATOR, CRYSTAL (27MHz)			
X701	1-767-211-11	VIBRATOR, CERAMIC (10MHz)			
X901	1-767-144-21	VIBRATOR, CERAMIC (5MHz)			
**********					
*	1-666-010-11	VIDEO IN BOARD			
		**********			
		< CAPACITOR >			
C601	1-126-157-11	ELECT	10uF	20%	16V
C602	1-126-157-11	ELECT	10uF	20%	16V
C603	1-126-926-11	ELECT	1000uF	20%	6.3V
C604	1-126-157-11	ELECT	10uF	20%	16V
C605	1-162-306-11	CERAMIC	0.01uF	20%	16V
C606	1-126-926-11	ELECT	1000uF	20%	10V
C607	1-124-472-11	ELECT	470uF	20%	10V
C608	1-164-159-11	CERAMIC	0.1uF		50V (SP,KR,MM,CH)
C609	1-164-159-11	CERAMIC	0.1uF		50V (SP,KR,MM,CH)
C610	1-164-159-11	CERAMIC	0.1uF		50V (SP,KR,MM,CH)

VIDEO IN

Ref. No.	Part No.	Description	Remarks
C611	1-102-972-00	CERAMIC 91PF	
		< CONNECTOR >	
CNP106	1-770-725-11	CONNECTOR, BOARD TO BOARD 4P	
* CNP107	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P	
		< FERRITE BEAD >	
FB601	1-412-473-21	INDUCTOR 0UH	
FB602	1-412-473-21	INDUCTOR 0UH	
FB603	1-412-473-21	INDUCTOR 0UH	
		< IC >	
IC601	8-759-711-14	IC NJM2246D	
		< JACK >	
J601	1-695-317-21	JACK, PIN 2P (VIDEO IN, MONITOR OUT)	
J602	1-537-943-11	TERMINAL, S (S VIDEO)	
		< COIL >	
L601	1-408-397-00	INDUCTOR 1uF	
		< TRANSISTOR >	
Q601	8-729-620-05	TRANSISTOR 2SC2603-EF	
		< RESISTOR >	
R601	1-216-021-00	METAL CHIP 68 5% 1/10W	
R602	1-216-021-00	METAL CHIP 68 5% 1/10W	
R603	1-216-031-00	METAL CHIP 180 5% 1/10W	
R604	1-216-029-00	METAL CHIP 150 5% 1/10W	
R605	1-216-023-00	METAL CHIP 82 5% 1/10W	
R606	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R607	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R608	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R609	1-216-073-00	METAL CHIP 10K 5% 1/10W	
		< SWITCH >	
S601	1-762-151-11	SWITCH, SLIDE (SYSTEM SELECT(AUTO/CD-AUTO-P	

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Ref. No.	Part No.	Description	Remarks
		MISCELLANEOUS	
		**********	
4	1-751-086-11	WIRE (FLAT TYPE) (13 CORE)	
5	1-765-325-11	WIRE (FLAT TYPE) (11 CORE)	
6	1-773-155-11	WIRE (FLAT TYPE) (21 CORE)	
* 10	1-666-009-11	DUMMY BOARD	
64	1-773-052-11	WIRE (FLAT TYPE) (17 CORE)	
257	1-452-925-11	MAGNET ASSY	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
⚠ 301	8-848-379-30	OPTICAL PICK-UP KSS-213B/S-N	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
HP101	1-500-093-11	HEAD, MAGNETIC (PB/ERASE)(BLACK)(DECK A)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)(DECK B)	
M1	A-2004-409-A	MOTOR ASSY, CAPSTAN	
M2	A-2004-410-A	MOTOR ASSY, DC (TRIGGER)	
M101	X-4917-523-A	MOTOR ASSY (SPRING)	
M102	X-4917-504-A	MOTOR ASSY (SLED)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	
M801	A-4672-004-A	MOTOR ASSY (SLED)	
S811	1-473-335-11	ENCODER, ROTARY	

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		**********	
		HARDWARE LIST	
		**********	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#3	7-685-872-09	SCREW +BVTT 3X8 (S)	
#5	7-621-775-09	SCREW +B 2.6X3	
#6	7-621-255-19	SCREW +P 2X3	
#7	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#8	7-685-131-19	SCREW +BTP 2.6X4 TYPE2 N-S	
#9	7-685-862-09	SCREW +BVTT 2.6X6 (S)	
#10	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#11	7-623-921-01	RING, RETAINING, CAPSTAN	
#12	7-621-775-19	SCREW +B 2.6X4	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Sony Corporation
Home A&V Products Company

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